

CUSTOM RATES SURVEY



Field Operations Fall Report 1999



Alberta
AGRICULTURE FOOD AND
RURAL DEVELOPMENT
Statistics and Data Development Unit

PREFACE

The Custom Rates Survey is conducted for Alberta Agriculture, Food and Rural Development by the Department Statistics and Data Development Unit.

The data presented in this report was obtained by contacting custom operators and dealers and thus represent actual charges. Please note that some instances may be Good Neighbour Rates as opposed to Commercial Rates. The reader should be aware that varying conditions in different areas of the province can significantly affect the rates charged from year to year.

The intent of the survey is to provide producers with additional information to help with their farm management decisions. The quality of data is dependent on the cooperation received by producers as well as commercial custom operators. We would like to thank all those who were so willing in helping to provide information. If you are involved in any custom operations and have not been contacted, but wish to contribute please contact me.

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ALBERTA

**Census Divisions and Municipalities
1996**

Produced by Alberta Treasury, Statistics.

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LAND CLEARING OPERATIONS 1999

Quantity		Custom Cost		Equipment	
1	16	\$3.75/ac	Mowing	Rental of 26' rotary mower	Light brush mowing
2	MD48	\$50/hr	RP	Bobcat with 5' bucket	
2	3	\$70/hr	BP/RP	D5 Cat	
2	3	\$90/hr	BP/RP	D7E Cat	
2	3	\$140/hr	BP/RP	D8H Cat	
2	3	\$150/hr	BP/RP	D8H Cat with Antiko 2 point ripper	
2	3	\$45/hr	Mowing	Tractor, Hovse 5' rotary mower	
2	6	\$95/hr	R	D7E Cat with 3 point ripper	
2	6	\$85/hr	BP/RP	D6D Cat	
2	6	\$95/hr	BP/RP	D7G Cat	
2	17	\$60/hr	RP	Case 550 crawler tractor	
2	17	\$85/hr	BP/RP	D6D Cat	
2	17	\$95/hr	BP/RP	D7G Cat	
2	17	\$100/hr	BP/RP	Cat 240 OR Cat 320 excavators	
2	17	\$120/hr	BP/RP	D8H Cat OR D8K Cat	

BP/RP - Brushing & Piling or Re-piling RP - Re-piling R - RIPPING RK - Root raking SS - Subsoiling ac - acre hr - hour
 * Custom costs include operator and are based on one pass per acre unless otherwise stated.



LAND CLEARING OPERATIONS 1999



Notes:

Region County Custom Cost Operation Equipment

Light brush mowing

1	16	\$3.75/ac	Mowing	Rental of 26' rotary mower	
2	MD48	\$50/hr	RP	Bobcat with 5' bucket	
2	3	\$70/hr	BP/RP	D5 Cat	
2	3	\$90/hr	BP/RP	D7E Cat	
2	3	\$140/hr	BP/RP	D8H Cat	
2	3	\$150/hr	BP/RP	D8H Cat with Antiko 2 point ripper	
2	3	\$45/hr	Mowing	Tractor, Howse 5' rotary mower	
2	6	\$95/hr	R	D7E Cat with 3 point ripper	
2	6	\$85/hr	BP/RP	D6D Cat	
2	6	\$95/hr	BP/RP	D7G Cat	
2	17	\$60/hr	RP	Case 550 crawler tractor	
2	17	\$85/hr	BP/RP	D6D Cat	
2	17	\$95/hr	BP/RP	D7G Cat	
2	17	\$100/hr	BP/RP	Cat 240 OR Cat 320 excavators	
2	17	\$120/hr	BP/RP	D8H Cat OR D8K Cat	

BP/RP - Brushing & Piling or Re-piling RP - Re-piling R - RIPPING RK - Root raking SS - Subsoiling ac - acre hr - hour
* Custom costs include operator and are based on one pass per acre unless otherwise stated.



LAND CLEARING OPERATIONS 1999

Custom
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Notes

2	23	\$105/hr	BP/RP	D7G Cat	
2	23	\$110/hr	BP/RP	D8H Cat	
2	23	\$135/hr	BP/RP	D8K Cat	
2	23	\$150-200/ac	BP/RP	D8H Cat	
2	23	\$135/hr	R	D8H Cat with Cat Parallelogram 1 point ripper	Includes ripper teeth
2	23	\$135/hr	R	D8K Cat with 4 barrel Parallelogram ripper	Plus ripper tips
3	MD52	\$95/hr	BP/RP	D7E Cat	
3	9	\$100/hr	BP/RP	D8H Cat	
3	9	\$120-150/ac	BP/RP	D8H Cat	
3	9	\$115/hr	R	D8H Cat with Cominco 1 point ripper	
3	24	\$100/hr	BP/RP	D85E Komatsu	
3	27	\$50/hr	Mowing	Tractor mounted Alamo 14' vertical rotary mower	Light brush mowing
3	27	\$65/hr	Mowing	MF 6150 80hp FWA tractor with Schulte 15' rotary mower	Light brush mowing
3	30	\$110-120/hr	R	D7G Cat with Lehman 3 barrel shank ripper	Plus \$100 for transportation

BP/RP - Brushing & Piling or Repiling R - RIPPING RK - Root raking SS - Subsoiling ac - acre hr - hour
* Custom costs include operator and are based on one pass per acre unless otherwise stated.

LAND CLEARING OPERATIONS 1999



Region	County	Custom Cost	Operation	Equipment	Notes
3	30	\$95/hr	BP/RP	D7G Cat	Plus \$100 for transportation
3	30	\$120/hr	BP/RP	D8K Cat	Plus \$100 for transportation
3	30	\$135/hr	BP/RP	Hitachi 300 trackhoe excavator	Plus \$100 for transportation
4	Lac Ste Anne	\$70/hr	RP	D3 Cat	
4	Lac Ste Anne	\$95/hr	BP/RP	D6 Cat	
4	Lac Ste Anne	\$100/hr	BP/RP	D7G Cat	
4	Lac Ste Anne	\$105-110/hr	BP/RP	D7 Cat	
4	Lac Ste Anne	\$120-125/hr	BP/RP	D8 Cat	
4	Lac Ste Anne	\$150-180/ac	BP/RP	D6, D7 and/or D8 Cat	
4	Lac Ste Anne	\$127-132/hr	R	D7 Cat with Cat 4 barrel ripper	Includes 1 ripper tip/10 hours
4	MD77	\$120/hr	BP/RP	D8K Cat	Transportation one way
4	MD77	\$85/hr	BP/RP	D6D Cat	Transportation one way
4	MD77	\$55/hr	Mowing	FWA 100hp tractor with Woods bat wing 10' wide brush mower	Light brush mowing
4	MD77	\$65/hr	Mowing	FWA 65hp tractor with 5' wide brush mower	
4	MD77	\$60/day	Mowing	Rental of John Deere brush mower 7' wide	Light brush mowing
4	MD92	\$60/hr	Tree Moving	Truck mount tree spade for moving trees within 50 mile radius	
4	MD92	\$145/hr	R	D8K Cat with Cat 1 point ripper	

BP/RP - Brushing & Piling or Re-piling R - RIPPING RK - Root raking SS - Subsoiling ac - acre hr - hour

* Custom costs include operator and are based on one pass per acre unless otherwise stated.

LAND CLEARING OPERATIONS 1999



2	23	\$105/hr	BP/RP	D7G Cat	
2	23	\$110/hr	BP/RP	D8H Cat	
2	23	\$135/hr	BP/RP	D8K Cat	
2	23	\$150-200/ac	BP/RP	D8H Cat	
2	23	\$135/hr	R	D8H Cat with Cat Parallelogram 1 point ripper	Includes ripper teeth
2	23	\$135/hr	R	D8K Cat with 4 barrel Parallelogram ripper	Plus ripper tips
3	MD52	\$95/hr	BP/RP	D7E Cat	
3	9	\$100/hr	BP/RP	D8H Cat	
3	9	\$120-150/ac	BP/RP	D8H Cat	
3	9	\$115/hr	R	D8H Cat with Cominco 1 point ripper	
3	24	\$100/hr	BP/RP	D85E Komatsu	
3	27	\$50/hr	Mowing	Tractor mounted Alamo 14' vertical rotary mower	Light brush mowing
3	27	\$65/hr	Mowing	MF 6150 80hp FWA tractor with Schulte 15' rotary mower	Light brush mowing
3	30	\$110-120/hr	R	D7G Cat with Lehman 3 barrel shank ripper	Plus \$100 for transportation

BP/RP - Brushing & Milling or Ripping R - RIPPING RK - Root raking SS - Subsoiling ac - acre hr - hour

* Custom costs include operator and are based on one pass per acre unless otherwise stated.

LAND CLEARING OPERATIONS 1999

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3	30	\$95/hr	BP/RP	D7G Cat	Plus \$100 for transportation
3	30	\$120/hr	BP/RP	D8K Cat	Plus \$100 for transportation
3	30	\$135/hr	BP/RP	Hitachi 300 trackhoe excavator	Plus \$100 for transportation

4	Lac Site Anne	\$70/hr	RP	D3 Cat	
4	Lac Site Anne	\$95/hr	BP/RP	D6 Cat	
4	Lac Site Anne	\$100/hr	BP/RP	D7G Cat	
4	Lac Site Anne	\$105-110/hr	BP/RP	D7 Cat	
4	Lac Site Anne	\$120-125/hr	BP/RP	D8 Cat	
4	Lac Site Anne	\$150-180/ac	BP/RP	D6, D7 and/or D8 Cat	

4	Lac Site Anne	\$127-132/hr	R	D7 Cat with Cat 4 barrel ripper	Includes 1 ripper tip/10 hours
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4	MD77	\$120/hr	BP/RP	D8K Cat	Transportation one way
4	MD77	\$85/hr	BP/RP	D6D Cat	Transportation one way

4	MD77	\$55/hr	Mowing	FWA 100hp tractor with Woods bat wing 10' wide brush mower	Light brush mowing
4	MD77	\$65/hr	Mowing	FWA 65hp tractor with 5' wide brush mower	
4	MD77	\$60/day	Mowing	Rental of John Deere brush mower 7' wide	Light brush mowing

4	MD92	\$60/hr	Tree Moving	Truck mount tree spade for moving trees within 50 mile radius	
4	MD92	\$145/hr	R	D8K Cat with Cat 1 point ripper	

BP/RP - Brushing & Piling or Replanting R - RIPPING RK - Root raking SS - Subsoiling ac - acre hr - hour

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LAND CLEARING OPERATIONS 1999

4	MD92	\$140-160/ac	BP/RP	D8K Cat	Light brush clearing
4	MD92	\$120/hr	BP/RP	D8K Cat	
4	MD92	\$70/hr	BP/RP	D7E Cat	
4	Strathcona	\$125/hr	BP/RP	D8-46A Cat	Light brush clearing
4	7	\$75/hr	BP/RP	D7 Cat	
4	10	\$65/hr	BP/RP	Dresser 200 excavator	
4	11	\$90/hr	BP/RP	D7G Cat	Light brush clearing
4	11	\$100/hr	BP/RP	D7G Cat	
4	11	\$105/hr	BP/RP	D7G Cat WITH Cat 1 shank ripper	
4	25	\$80/hr	BP/RP	D6D Cat	Heavy brush clearing
4	25	\$80-90/hr	BP/RP	D8 Cat (older model)	
5	MD of Big Lakes	\$130/hr	BP/RP	D8K Cat with 18' cutter and 22' piler	
5	MD of Big Lakes	\$175/ac	BP/RP	D8K Cat with 18' cutter and 22' piler	Heavy brush clearing
5	MD16	\$125/hr	R	D85 Komatsu with 1 shank ripper	
5	MD16	\$105/hr	R	D65 Komatsu with 1 shank ripper	

BP/RP - Brushing & Piling or Repiling R - RIPPING RK - Root raking SS - Subsoiling ac - acre hr - hour
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LAND BREAKING OPERATIONS 1999



1 MD6 \$100/hr D JD 8440 4wd 210hp tractor, Whishek 14' break disc

MD31 \$110/hr DR/DO/LL D7 Cat

MD31 \$120/hr DR/DO/LL Terex TS14 motor scraper excavator

MD31 \$125/hr DR/DO/LL D8 Cat

8 \$100/hr DR/DO/LL JD 8508 motor scraper

8 \$100/hr DR/DO/LL Hitachi EX200-3 Hi-hoe excavator

8 \$130/hr DR/DO/LL Terex TS14B motor scraper

16 \$3/ac Floats Rental of hay floats with wagon

16 \$100/day DR/DO/LL Rental of slough pump with 400' hose

16 \$325/day DR/DO/LL Rental of 11 cubic yard scraper

26 \$60/hr DR/DO/LL Case 580 backhoe with 40" cleanout bucket

Calgary \$120/hr P Versatile 118 4wd 227hp tractor, rotary plow 350hp 6' wide

D - Discing P - Plowing LL - Land Levelling R - Rototilling DO - Dugouts DR - Drainage FWA - Front wheel assist
 JD - John Deere MF - Massey Ferguson IH - International NH - New Holland ac - acre hr - hour cuyd - cubic yard mi - mile
 * Custom costs include operator and are based on one pass per acre unless otherwise stated.

LAND CLEARING OPERATIONS 1999



Notes

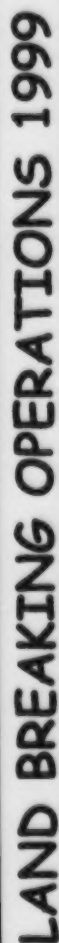
Custom
Costs
Operation
Equipment

County

Region

4	MD92	\$140-160/ac	BP/RP	D8K Cat	Light brush clearing
4	MD92	\$120/hr	BP/RP	D8K Cat	
4	MD92	\$70/hr	BP/RP	D7E Cat	
4	Strathcona	\$125/hr	BP/RP	D8-46A Cat	Light brush clearing
4	7	\$75/hr	BP/RP	D7 Cat	
4	10	\$65/hr	BP/RP	Dresser 200 excavator	
4	11	\$90/hr	BP/RP	D7G Cat	Light brush clearing
4	11	\$100/hr	BP/RP	D7G Cat	
4	11	\$105/hr	BP/RP	D7G Cat WITH Cat 1 shank ripper	
4	25	\$80/hr	BP/RP	D6D Cat	Heavy brush clearing
4	25	\$80-90/hr	BP/RP	D8 Cat (older model)	
5	MD of Big Lakes	\$130/hr	BP/RP	D8K Cat with 18' cutter and 22' piler	
5	MD of Big Lakes	\$175/ac	BP/RP	D8K Cat with 18' cutter and 22' piler	Heavy brush clearing
5	MD16	\$125/hr	R	D85 Komatsu with 1 shank ripper	
5	MD16	\$105/hr	R	D65 Komatsu with 1 shank ripper	

BP/RP - Brushing & Piling or Re-piling R - RIPPING RK - Root raking SS - Subsoiling ac - acre hr - hour
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LAND BREAKING OPERATIONS 1999

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LAND BREAKING OPERATIONS 1999



Notes

Custom
Costs
Operation
Equipment

2	3	\$70/hr	D	White 6195 FWA 220hp tractor, Kello 250 series breaking disc 14' wide	
2	3	\$80/hr	DR/DO/LL	Steiger 4wd 140hp tractor, Kello 10' wide double breaking disc with 50" blades	
2	3	\$100/hr	DR/DO/LL	Case 9030 crawler tractor with 0.75 cubic yard bucket	Swamps and yard clean-up
2	3	\$140/hr	DR/DO/LL	D8H Cat	
2	3	\$125/hr	Rock Picking	Versatile 256 4wd 100hp tractor, Harley-A-Highlift rock picker	
2	6	\$95/hr	DR/DO/LL	D7 Cat	
2	6	\$130/hr	DR/DO/LL	Fiat Allis motor scraper	
2	6	\$100/cuyd	DO	D7G Cat and Fiat Allis motor scraper	
2	17	\$55/hr	DR/DO/LL	JD 310C backhoe	Water lines
2	17	\$85/hr	DR/DO/LL	D6D Cat	
2	17	\$95/hr	DR/DO/LL	D7G Cat	
2	17	\$100/hr	DR/DO/LL	Cat 240 or Cat 320 excavators	Water lines
2	17	\$120/hr	DR/DO/LL	D8H OR D8K Cat	

D - Discing P - Plowing LL - Land Levelling R - Rototilling DO - Dugouts DR - Drainage FWA - Front wheel assist
 JD - John Deere MF - Massey Ferguson IH - International NH - New Holland ac - acre hr - hour cuyd - cubic yard mi - mile
 * Custom costs include operator and are based on one pass per acre unless otherwise stated.



LAND BREAKING OPERATIONS 1999

Note

Region County Custom Cost Operation Equipment

2	23	\$30/ac	D	Steiger 4wd 360hp tractor, 2 Kello 300 breaking discs together - one behind the other
2	23	\$100/hr	DR/DO/LL	JD 790 trackhoe excavator
2	23	\$100/hr	DR/DO/LL	D8H Cat
2	23	\$105/hr	DR/DO/LL	D7 Cat
2	23	\$130/hr	DR/DO/LL	CAT 627 motor scraper
2	23	\$135/hr	DR/DO/LL	D8 Cat
3	MD52	\$95/hr	DR/DO/LL	D7E Cat
3	MD52	\$100/hr	DR/DO/LL	JD 790 trackhoe excavator
3	MD87	\$220/hr	R	MF 210hp 4wd tractor with Madge rotovator 330hp 8' wide
3	9	\$100/hr	D	D8 Cat with Kello 12' wide disc
3	9	\$70/hr	DR/DO/LL	Champion 760 grader
3	9	\$100/hr	DR/DO/LL	D8 Cat
3	9	\$112/hr	DR/DO/LL	D8 Cat with 1 point ripper
3	9	\$120/hr	DR/DO/LL	Terex TS14 motor scraper excavator

D - Discing P - Plowing LL - Land Levelling R - Rototilling DO - Dugouts DR - Drainage FWA - Front wheel assist
 JD - John Deere MF - Massey Ferguson IH - International NH - New Holland ac - acre hr - hour cuyd - cubic yard mi - mile
 * Custom costs include operator and are based on one pass per acre unless otherwise stated.



LAND BREAKING OPERATIONS 1999

1999-2000
The following are estimates

2	3	\$70/hr	D	White 6195 FWA 220hp tractor, Kello 250 series breaking disc 14' wide	
2	3	\$80/hr	DR/DO/LL	Steiger 4wd 140hp tractor, Kello 10' wide double breaking disc with 50" blades	
2	3	\$100/hr	DR/DO/LL	Case 9030 crawler tractor with 0.75 cubic yard bucket	Swamps and yard clean-up
2	3	\$140/hr	DR/DO/LL	D8H Cat	
2	3	\$125/hr	Rock Picking	Versatile 256 4wd 100hp tractor, Harley-A-Highlift rock picker	
2	6	\$95/hr	DR/DO/LL	D7 Cat	
2	6	\$130/hr	DR/DO/LL	Flat Allis motor scraper	
2	6	\$100/cuyd	DO	D7G Cat and Fiat Allis motor scraper	
2	17	\$55/hr	DR/DO/LL	JD 310C backhoe	Water lines
2	17	\$85/hr	DR/DO/LL	D6D Cat	
2	17	\$95/hr	DR/DO/LL	D7G Cat	
2	17	\$100/hr	DR/DO/LL	Cat 240 or Cat 320 excavators	Water lines
2	17	\$120/hr	DR/DO/LL	D8H OR D8K Cat	

D - Discing P - Plowing LL - Land Levelling R - Rototilling DO - Dugouts DR - Drainage FWA - Front wheel assist
 JD - John Deere MF - Massey Ferguson IH - International NH - New Holland ac - acre hr - hour cuyd - cubic yard mi - mile
 * Custom costs include operator and are based on one pass per acre unless otherwise stated.

LAND BREAKING OPERATIONS 1999

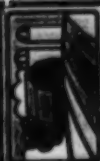


Steiger 4wd 360hp tractor, 2 Kello 300 breaking discs together - one behind the other

2	23	\$30/ac	D	
2	23	\$100/hr	DR/DO/LL	JD 790 trackhoe excavator
2	23	\$100/hr	DR/DO/LL	D8H Cat
2	23	\$105/hr	DR/DO/LL	D7 Cat
2	23	\$130/hr	DR/DO/LL	CAT 627 motor scraper
2	23	\$135/hr	DR/DO/LL	D8 Cat
3	MD52	\$95/hr	DR/DO/LL	D7E Cat
3	MD52	\$100/hr	DR/DO/LL	JD 790 trackhoe excavator
3	MD87	\$220/hr	R	MF 210hp 4wd tractor with Madge rotovator 330hp 8' wide
3	9	\$100/hr	D	D8 Cat with Kello 12' wide disc
3	9	\$70/hr	DR/DO/LL	Champion 760 grader
3	9	\$100/hr	DR/DO/LL	D8 Cat
3	9	\$112/hr	DR/DO/LL	D8 Cat with 1 point ripper
3	9	\$120/hr	DR/DO/LL	Terex TS14 motor scraper excavator

D - Discing P - Plowing LL - Land Levelling R - Rototilling DO - Dugouts DR - Drainage FWA - Front wheel assist
 JD - John Deere MF - Massey Ferguson IH - International NH - New Holland ac - acre hr - hour cu yd - cubic yard mi - mile
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LAND BREAKING OPERATIONS 1999



3	24	\$100/hr	DR/DO/LL	D85E Komatsu	
3	30	\$85-90/hr	DR/DO/LL	Volvo 4500 4.5 cubic yard wheel loader	Plus \$100 for hauling equipment
3	30	\$125/hr	DR/DO/LL	Tarex TS14 motor scraper	Plus \$100 for hauling equipment
3	30	\$135/hr	DR/DO/LL	Hitachi 300 trackhoe excavator	Plus \$100 for hauling equipment
3	30	\$135/hr	DR/DO/LL	Hitachi 300 trackhoe excavator	Plus \$100 for hauling equipment
4	Lac Ste Anne	\$60/hr	Aerating	JD 4440 125hp 2wd tractor, Airway 16' wide aerator	Plus fuel
4	Lac Ste Anne	\$95/hr	DR/DO/LL	D6D Cat	
4	Lac Ste Anne	\$100/hr	DR/DO/LL	D7E Cat	
4	Lac Ste Anne	\$105-110/hr	DR/DO/LL	D7 Cat	
4	Lac Ste Anne	\$120-125/hr	DR/DO/LL	D8 Cat	
4	MD77	\$85/hr	D	JD 7710 4wd 130hp tractor, Kello 10' wide breaking disc	
4	MD77	\$85/hr	D	Versatile 4wd 380hp tractor, Kello 500 series 12' wide breaking disc	
4	MD77	\$145/hr	D	D8K Cat with Rome TRW 12' break disc	
4	MD77	\$95/hr	P	D6D Cat with Nordheimer 2 bottom break plow 24" spacing	

D - Discing P - Plowing LL - Land Levelling R - Rotofilling DO - Dugouts DR - Drainage FWA - Front wheel assist
 JD - John Deere MF - Massey Ferguson IH - International NH - New Holland ac - acre hr - hour cuyd - cubic yard mi - mile
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LAND BREAKING OPERATIONS 1999



Also does back filling

4 MD77 \$65/hr DR/DO/LL Cat D5C OR Case 850D crawler tractor

4 MD77 \$85/hr DR/DO/LL D6D Cat

4 MD77 \$110/hr DR/DO/LL Cat 325 excavator

4 MD77 \$120/hr DR/DO/LL D8K Cat

4 MD77 \$95/day R Rental of 3 point hitch heavy duty rototiller 5' wide

4 MD92 \$70/hr DR/DO/LL D7 Cat with scraper

4 MD92 \$85-90/hr D 4wd 300hp tractor with Kello 10' wide breaking disc

4 MD92 \$100/hr DR/DO/LL Cat 320 backhoe excavator

4 MD92 \$120/hr DR/DO/LL D8K Cat

4 MD94 \$50/hr DR/DO/LL Case 550 crawler tractor with dozer blade

4 MD94 \$55/hr DR/DO/LL Cat 416C wheel loader excavator

4 Parkland \$86/hr R Muskeg rototilling with hi-floatation tractor with rototiller

4 Parkland \$1.64/meter Ditching Muskeg rototilling with hi-floatation tractor with ditcher

For wet muskeg areas

For wet muskeg areas

Small projects

4 Strathcona \$40/hr DR/DO/LL NH 885 Skid steer loader

4 Strathcona \$125/hr DR/DO/LL D8-46A Cat

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 JD - John Deere MF - Massey Ferguson IH - International NH - New Holland ac - acre hr - hour cu yd - cubic yard mi - mile
 * Custom costs include operator and are based on one pass per acre unless otherwise stated.

LAND BREAKING OPERATIONS 1999



NOTES

DISCING - OPERATOR EQUIPMENT

3	24	\$100/hr	DR/DO/LL	D85E Komatsu	
3	30	\$85-90/hr	DR/DO/LL	Volvo 4500 4.5 cubic yard wheel loader	Plus \$100 for hauling equipment
3	30	\$125/hr	DR/DO/LL	Terex TS14 motor scraper	Plus \$100 for hauling equipment
3	30	\$135/hr	DR/DO/LL	Hitachi 300 trackhoe excavator	Plus \$100 for hauling equipment
3	30	\$135/hr	DR/DO/LL	Hitachi 300 trackhoe excavator	Plus \$100 for hauling equipment
4	Lac Ste Anne	\$50/hr	Aerating	JD 4440 125hp 2wd tractor, Airway 16' wide aerator	Plus fuel
4	Lac Ste Anne	\$95/hr	DR/DO/LL	D6D Cat	
4	Lac Ste Anne	\$100/hr	DR/DO/LL	D7G Cat	
4	Lac Ste Anne	\$105-110/hr	DR/DO/LL	D7 Cat	
4	Lac Ste Anne	\$120-125/hr	DR/DO/LL	D8 Cat	
4	MD77	\$85/hr	D	JD 7710 4wd 130hp tractor, Kello 10' wide breaking disc	
4	MD77	\$85/hr	D	Versatile 4wd 380hp tractor, Kello 500 series 12' wide breaking disc	
4	MD77	\$145/hr	D	D8K Cat with Rome TRW 12' break disc	
4	MD77	\$95/hr	P	D6D Cat with Nordheimer 2 bottom break plow 24" spacing	

D - Discing P - Plowing LL - Land Levelling R - Rototilling DO - Dugouts DR - Drainage FWA - Front wheel assist
 JD - John Deere MF - Massey Ferguson IH - International NH - New Holland ac - acre hr - hour cu yd - cubic yard mi - mile
 * Custom costs include operator and are based on one pass per acre unless otherwise stated.

LAND BREAKING OPERATIONS 1999



Region	County	Custom Cost	Operation	Equipment	Notes
4	MD77	\$65/hr	DR/DO/LL	Cat D5C OR Case 850D crawler tractor	Also does back filling
4	MD77	\$85/hr	DR/DO/LL	D6D Cat	
4	MD77	\$110/hr	DR/DO/LL	Cat 325 excavator	
4	MD77	\$120/hr	DR/DO/LL	D8K Cat	
4	MD77	\$95/day	R	Rental of 3 point hitch heavy duty rototiller 5' wide	
4	MD92	\$70/hr	DR/DO/LL	D7 Cat with scraper	
4	MD92	\$85-90/hr	D	4wd 300hp tractor with Kello 10' wide breaking disc	
4	MD92	\$100/hr	DR/DO/LL	Cat 320 backhoe excavator	
4	MD92	\$120/hr	DR/DO/LL	D8K Cat	
4	MD94	\$50/hr	DR/DO/LL	Case 550 crawler tractor with dozer blade	
4	MD94	\$55/hr	DR/DO/LL	Cat 416C wheel loader excavator	
4	Parkland	\$86/hr	R	Muskeg rototilling with hi-floatation tractor with rototiller	For wet muskeg areas
4	Parkland	\$1.64/meter	Ditching	Muskeg rototilling with hi-floatation tractor with ditcher	For wet muskeg areas
4	Strathcona	\$40/hr	DR/DO/LL	NH 885 Skid steer loader	Small projects
4	Strathcona	\$125/hr	DR/DO/LL	D8-46A Cat	

D - Discing P - Plowing LL - Land Levelling R - Rototilling DO - Dugouts DR - Drainage FWA - Front wheel assist
 JD - John Deere MF - Massey Ferguson IH - International NH - New Holland ac - acre hr - hour cuyd - cubic yard mi - mile
 * Custom costs include operator and are based on one pass per acre unless otherwise stated.

LAND BREAKING OPERATIONS 1999



NOTES

Quantity Custom Cost Operation Equipment

4	7	\$75/hr	DR/DO/LL	D7 Cat	
4	10	\$200/hr	DR/DO/LL	Cat Challenger 14 cubic yard scraper laser equipped	Lagoons
4	10	\$12.50/ac	D	Versatile 4wd 300hp tractor, Ezee-On 12' wide break disc	Per pass; 2 passes required
4	11	\$85/hr	P	Steiger 4wd 325hp tractor with 2 bottom breaking plow 24" spacing	
4	11	\$90/hr	DR/DO/LL	D7G Cat	
4	11	\$100/hr	DR/DO/LL	EL240 Cat excavator	
4	11	\$105/hr	DR/DO/LL	D7G Cat with 1 shank ripper	
4	11	\$115/hr	DR/DO/LL	Hitachi EX300 excavator	
4	12	\$75/hr	D	Versatile 876 4wd 280hp tractor, Whishek heavy duty 24' wide tandem breaking disc	Approximately 10 acres/hour
4	12	\$85/hr	D	Versatile 756 4wd 200hp tractor, Rome TAW series 9.5' breaking disc	
4	25	\$80/hr	DR/DO/LL	JD trackhoe excavator	
4	25	\$80-90/hr	DR/DO/LL	D8 Cat (older model)	
5	MD of Big Lakes	\$15-16/ac	D	D6D Cat with Amco-IH 10' wide breaking disc	After being plowed with breaking plow

D - Discing P - Plowing LL - Land Levelling R - Rototilling DO - Dugouts DR - Drainage FWA - Front wheel assist
 JD - John Deere MF - Massey Ferguson IH - International NH - New Holland ac - acre hr - hour cuyd - cubic yard mi - mile
 * Custom costs include operator and are based on one pass per acre unless otherwise stated.

LAND BREAKING OPERATIONS 1999



Region	County	Custom Cost	Operation	Equipment	Notes
5	MD of Big Lakes	\$50/ac	P	Steiger 4wd 250hp tractor, Dika 224 2-bottom break plow 24" spacing	Per pass; more than 1 pass may be required
5	MD of Big Lakes	\$60/ac	P	D6D Cat with Dika 2-bottom breaking plow 26" spacing	
5	MD of Big Lakes	\$75/hr	DR/DO/LL	Ashland I-110 motor scraper excavator	
5	MD of Big Lakes	\$90/hr	R	JD 7020 4wd 150hp tractor, Madge rotovator 7' wide	
5	MD16	\$90/hr	DR/DO/LL	Case 9010 excavator	
5	MD16	\$110/hr	DR/DO/LL	Samsung 210 excavator	
5	MD16	\$125/hr	DR/DO/LL	Hyundai 290 trackhoe excavator	
5	MD16	\$125/hr	DR/DO/LL	Hyundai 290 trackhoe excavator	
5	MD17	\$25/ac	D	IH 4786 4wd 350hp tractor with heavy duty tandem disc 26' wide	
5	MD124	\$125/hr	P	Case 2470 4wd 200hp tractor, Dika 2-bottom breaking plow 36" spacing	
5	MD124	\$145/hr	D	Case 2470 4wd 200hp tractor, Kello 500 series 10' breaking disc	
<p>D - Discing P - Plowing LL - Land Levelling R - Rototilling DO - Dugouts DR - Drainage FWA - Front wheel assist</p> <p>JD - John Deere MF - Massey Ferguson IH - International NH - New Holland ac - acre hr - hour cu yd - cubic yard mi - mile</p> <p>* Custom costs include operator and are based on one pass per acre unless otherwise stated.</p>					

LAND BREAKING OPERATIONS 1999



4	7	\$75/hr	DR/DO/LL	D7 Cat	
4	10	\$200/hr	DR/DO/LL	Cat Challenger 14 cubic yard scraper laser equipped	Lagoons
4	10	\$12.50/ac	D	Versatile 4wd 300hp tractor, Ezee-On 12' wide break disc	Per pass; 2 passes required
4	11	\$85/hr	P	Steiger 4wd 325hp tractor with 2 bottom breaking plow 24" spacing	
4	11	\$90/hr	DR/DO/LL	D7G Cat	
4	11	\$100/hr	DR/DO/LL	EL240 Cat excavator	
4	11	\$105/hr	DR/DO/LL	D7G Cat with 1 shank ripper	
4	11	\$115/hr	DR/DO/LL	Hitachi EX300 excavator	
4	12	\$75/hr	D	Versatile 876 4wd 280hp tractor, Whishek heavy duty 24' wide tandem breaking disc	Approximately 10 acres/hour
4	12	\$85/hr	D	Versatile 756 4wd 200hp tractor, Rome TAW series 9.5' breaking disc	
4	25	\$80/hr	DR/DO/LL	JD trackhoe excavator	
4	25	\$80-90/hr	DR/DO/LL	D8 Cat (older model)	
5	MD of Big Lakes	\$15-16/ac	D	D6D Cat with Amco-IH 10' wide breaking disc	After being plowed with breaking plow

D - Discing P - Plowing LL - Land Levelling R - Rototilling DO - Dugouts DR - Drainage FWA - Front wheel assist

JD - John Deere MF - Massey Ferguson IH - International NH - New Holland ac - acre hr - hour cuyd - cubic yard mi - mile

* Custom costs include operator and are based on one pass per acre unless otherwise stated.



LAND BREAKING OPERATIONS 1999

Per pass; more than 1 pass may be required

5	MD of Big Lakes	\$50/ac	P	Steiger 4wd 250hp tractor, Dika 224 2-bottom break plow 24" spacing
5	MD of Big Lakes	\$60/ac	P	D6D Cat with Dika 2-bottom breaking plow 26" spacing

5	MD of Big Lakes	\$75/hr	DR/DO/LL	Ashland I-10 motor scraper excavator
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5	MD of Big Lakes	\$90/hr	R	JD 7020 4wd 150hp tractor, Madge rotavator 7' wide
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5	MD16	\$90/hr	DR/DO/LL	Case 9010 excavator
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5	MD16	\$110/hr	DR/DO/LL	Samsung 210 excavator
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5	MD16	\$125/hr	DR/DO/LL	Hyundai 290 trackhoe excavator
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5	MD16	\$125/hr	DR/DO/LL	Hyundai 290 trackhoe excavator
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5	MD17	\$25/ac	D	IH 4786 4wd 350hp tractor with heavy duty tandem disc 26' wide
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5	MD124	\$125/hr	P	Case 2470 4wd 200hp tractor, Dika 2-bottom breaking plow 36" spacing
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5	MD124	\$145/hr	D	Case 2470 4wd 200hp tractor, Kello 500 series 10' breaking disc
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D - Discing P - Plowing LL - Land Levelling R - Rototilling DO - Dugouts DR - Drainage FWA - Front wheel assist
 JD - John Deere MF - Massey Ferguson IH - International NH - New Holland ac - acre hr - hour cu yd - cubic yard mi - mile
 * Custom costs include operator and are based on one pass per acre unless otherwise stated.

TILLAGE OPERATIONS 1999



1	MD6	\$100/hr	D	JD 8440 4wd 210hp tractor, Whishek 14' breaking disc	P/H
1	4	\$5.50/ac	C	JD 8630 4wd 225hp tractor, JD 1400 32' chisel plow	C/S
1	4	\$5.50/ac	D	JD 8630 4wd 225hp tractor, JD 330 25' double offset disc	C/S
1	4	\$2.50/ac	HP	JD 4430 2wd 120hp tractor, System 95 harrow packers 90' wide	C/S
1	16	\$300/day	D	Rental of Kello 14' wide double disc	
1	16	\$3/ac	Floats	Rental of hay floats with wagon	
1	16	\$3/ac	LR	Rental of 40' wide land roller	
1	16	\$45/hr	Tractor	Rental of JD 2592 4wd 210hp tractor	
1	16	\$80/hr	Tractor	Rental of Case 9270 4wd 325hp tractor	
1	26	\$5/ac	C	Case-IH 9250 4wd 300hp tractor, Melrow 31' chisel plow	C/S
1	26	\$6/ac	C	Case-IH 9250 4wd 260hp tractor, Case-IH 33' field cultivator with harrows behind	C/S
1	26	\$2.50/ac	HP	JD 2wd 120hp tractor, Blanchard 50' harrow packers	C/S

C - Cultivating D - Discing P - Plowing H - Harrowing HP - Harrow/packing R - Rototilling SS - Subsoiling LR - Land Rolling
 JD - John Deere AC - Allis Chalmers IH - International MF - Massey Ferguson NH - New Holland VERS - Versatile
 P/H - Pasture/Mayland C/S - Crop/Summerfallow hr - hour ac - acre Fwa - Front wheel assist SP - self propelled PT - pull type
 * Custom costs include operator and are based on one pass per acre unless otherwise stated.

TILLAGE OPERATIONS 1999



1	26	\$10/ac	D	Case 4890 4wd 300hp tractor, Hutchmaster 28' double offset disc	P/H
1	26	\$7.50/ac	D	Case 4890 4wd 300hp tractor, Hutchmaster 28' double offset disc	C/S
2	Calgary	\$120/hr	R	Versatile 118 4wd 225hp tractor with 350hp 6.5' wide rotary plow	P/H
2	Calgary	\$78-82/ac	R	Versatile 118 4wd 225hp tractor with 350hp 6.5' wide rotary plow	P/H
2	MD44	\$6/ac	C	Case 4490 4wd 160hp tractor, Morris 31' deep tillage cultivator	C/S
2	3	\$70/hr	C	White 6195 FWA 220hp tractor, Krause 26' chisel plow	C/S
2	3	\$10/ac	D	JD 4440 2wd 140hp tractor, Kello 210 14' wide disc	P/H
2	3	\$80/hr	D	Steiger 4wd 140hp tractor, Kello 10' wide breaking disc with 30" blades	P/H
2	17	\$24/ac	P	Steiger Wildcat 1000 4wd 190hp tractor, IH 6 bottom plow with 16" spacing	P/H
2	18	\$9/ac	D	AC 8070 FWA 170hp tractor, AC 2600 26' wide tandem disc	P/H
2	18	\$3.50/ac	H	JD 8100 FWA 160hp tractor, Morris 50' harrow packers	C/S
2	23	\$125/hr	SS	Steiger 4wd 360hp tractor, Kello 5 shank subsoiler	P/H, C/S

Per pass: two passes required

C - Cultivating D - Discing P - Plowing H - Harrowing HP - Harrow/packing R - Rototilling SS - Subsoiling LR - Land Rolling

JD - John Deere AC - Allis Chalmers IH - International MF - Massey Ferguson NH - New Holland VERS - Versatile

P/H - Pasture/Hayland C/S - Crop/Summerfallow hr - hour ac - acre Fwa - Front wheel assist SP - self propelled PT - pull type

* Custom costs include operator and are based on one pass per acre unless otherwise stated.

TILLAGE OPERATIONS 1999



1	MD6	\$100/hr	D	JD 8440 4wd 210hp tractor, Whishek 14' breaking disc	P/H
1	4	\$5.50/ac	C	JD 8630 4wd 225hp tractor, JD 1400 32' chisel plow	C/S
1	4	\$5.50/ac	D	JD 8630 4wd 225hp tractor, JD 330 25' double offset disc	C/S
1	4	\$2.50/ac	HP	JD 4430 2wd 120hp tractor, System 95 harrow packers 50' wide	C/S
1	16	\$300/day	D	Rental of Kello 14' wide double disc	
1	16	\$3/ac	Floats	Rental of hay floats with wagon	
1	16	\$3/ac	LR	Rental of 40' wide land roller	
1	16	\$45/hr	Tractor	Rental of JD 2592 4wd 210hp tractor	
1	16	\$80/hr	Tractor	Rental of Case 9270 4wd 325hp tractor	
1	26	\$5/ac	C	Case-IH 9250 4wd 300hp tractor, Melrow 31' chisel plow	C/S
1	26	\$6/ac	C	Case-IH 9250 4wd 260hp tractor, Case-IH 33' field cultivator with harrows behind	C/S
1	26	\$2.50/ac	HP	JD 2wd 120hp tractor, Blanchard 50' harrow packers	C/S

C - Cultivating D - Discing P - Plowing H - Harrowing HP - Harrow/packing R - Rototilling SS - Subsoiling LR - Land Rolling
 JD - John Deere AC - Allis Chalmers IH - International MF - Massey Ferguson NH - New Holland VRS - Versatile
 P/H - Pasture/Hayland C/S - Crop/Summer-fallow hr - hour ac - acre Fw - Front wheel assist SP - self propelled PT - pull type
 * Custom costs include operator and are based on one pass per acre unless otherwise stated.



TILLAGE OPERATIONS 1999

Station	County	Custom Rate	Machine	Equipment	Land Type	Notes
1	26	\$10/ac	D	Case 4890 4wd 300hp tractor, Hutchmaster 28' double offset disc	P/H	
1	26	\$7.50/ac	D	Case 4890 4wd 300hp tractor, Hutchmaster 28' double offset disc	C/S	
2	Calgary	\$120/hr	R	Versatile 118 4wd 225hp tractor with 350hp 6.5' wide rotary plow	P/H	
2	Calgary	\$78-82/ac	R	Versatile 118 4wd 225hp tractor with 350hp 6.5' wide rotary plow	P/H	
2	MD44	\$6/ac	C	Case 4490 4wd 160hp tractor, Morris 31' deep tillage cultivator	C/S	
2	3	\$70/hr	C	White 6195 FWA 220hp tractor, Krause 26' chisel plow	C/S	
2	3	\$10/ac	D	JD 4440 2wd 140hp tractor, Kello 210 14' wide disc	P/H	
2	3	\$80/hr	D	Steiger 4wd 140hp tractor, Kello 10' wide breaking disc with 30" blades	P/H	
2	17	\$24/ac	P	Steiger Wildcat 1000 4wd 190hp tractor, IH 6 bottom plow with 16" spacing	P/H	
2	18	\$9/ac	D	AC 8070 FWA 170hp tractor, AC 2600 26' wide tandem disc	P/H	Per pass; two passes required
2	18	\$3.50/ac	H	JD 8100 FWA 160hp tractor, Morris 50' harrow packers	C/S	
2	23	\$125/hr	SS	Steiger 4wd 360hp tractor, Kello 5 shank subsoiler	P/H, C/S	

C - Cultivating D - Discing P - Plowing H - Harrowing HP - Harrow/packing R - Rototilling SS - Subsoiling LR - Land Rolling

JD - John Deere AC - Allis Chalmers IH - International MF - Massey Ferguson NH - New Holland VERS - Versatile

P/H - Pasture/Hayland C/S - Crop/Summerfallow hr - hour ac - acre Fwa - Front wheel assist SP - self propelled PT - pull type

* Custom costs include operator and are based on one pass per acre unless otherwise stated.



TILLAGE OPERATIONS 1999

Region	County	Custom Cost	Operation	Equipment	Land Type	Notes
2	23	\$110/hr	D	Steiger 4wd 360hp tractor, 2 Kello 300 12' discs one behind the other	P/H, C/S	
2	23	\$30/ac	D	Steiger 4wd 360hp tractor, 2 Kello 300 12' discs one behind the other	P/H, C/S Per pass	
2	23	\$350/day	D	Rental of Kello 300 series 10' wide disc		
2	23	\$425/day	D	Rental of Kello 400 series 10' wide disc		
2	23	\$475/day	D	Rental of Kello 500 series 10' wide disc		
3	MD87	\$12/ac	P	MF 4wd 210hp tractor, Melrose moldboard 8 bottom plow 16" spacing	P/H	
3	MD87	\$220/hr	R	MF 4wd 210hp tractor, Madge rotovator 330HP 8' wide	P/H	
3	9	\$45-50/hr	C	Case 2470 4wd 130hp tractor, Case-IH 28' wide deep tillage cultivator	C/S	
3	9	\$100/hr	D	D8 Cat with Kello 12' wide breaking disc	P/H	
3	29	\$25-26/ac	SS	Cat 95E crawler tractor with 8 shank ripper	P/H, C/S	
3	30	\$5-6/ac	C	JD 4wd 175hp tractor, JD Vibrashank 36' wide cultivator	C/S	
3	30	\$6/ac	C	JD 4wd 220hp tractor, JD 610 deep tillage 27' wide cultivator	C/S	
3	30	\$5/ac	D	JD 4wd 220hp tractor, MF 820 offset 33' wide disc	C/S	

C - Cultivating D - Discing P - Plowing H - Harrowing HP - Harrow/packing R - Rotatilling SS - Subsoiling LR - Land Rolling
 JD - John Deere AC - Allis Chalmers IH - International MF - Massey Ferguson NH - New Holland VERS - Versatile
 P/H - Pasture/Hayland C/S - Crop/Summerfallow hr - hour ac - acre Fwa - Front wheel assist SP - self propelled PT - pull type
 * Custom costs include operator and are based on one pass per acre unless otherwise stated.

TILLAGE OPERATIONS 1999



Operation Quantity Unit Cost Operation Equipment Unit Cost Note

3	30	\$3/ac	H	JD 4wd 175hp tractor, Flexicoil 70' wide harrows	C/S
3	30	\$8/ac	P	JD 4wd 220hp tractor, IH 800 10 bottom plow 18" spacing	C/S
3	30	\$10/ac	P	JD 4wd 220hp tractor, IH 800 10 bottom plow 18" spacing	P/H
4	MD77	\$85/hr	C	Versatile 4wd 380hp tractor, Vibrashank 32' wide chisel plow	C/S
4	MD77	\$85/hr	D	Versatile 4wd 380hp tractor, Kello 500 series 12' wide disc	P/H
4	MD77	\$85/hr	D	JD 7710 4wd 130hp tractor, 18' wide field disc	P/H
4	MD77	\$145/hr	D	D8K Cat with Rome TRW 12' wide breaking disc	P/H
4	MD77	\$95/hr	P	D6D Cat with Nardheimer 2 bottom breaking plow 24" spacing	P/H
4	MD77	\$100/hr	R	JD 7710 4wd 130hp tractor with 8' wide rototiller	P/H
4	MD77	\$100/hr	R	JD 7710 4wd 130hp tractor, Kello 10' wide breaking disc	P/H
4	MD92	\$85/hr	C	Case 4490 4wd 180hp tractor, Case 25' wide chisel plow	P/H
4	MD94	\$75/hr	D	Case FWA 175hp tractor, Ezee-On 15' heavy duty disc 28" blades	P/H
4	MD94	\$75/hr	H	Case FWA 175hp tractor, 48' heavy duty tyne harrows	C/S

C - Cultivating D - Discing P - Plowing H - Harrowing HP - Harrow/packing R - Rototilling SS - Subsoiling LR - Land Rolling
 JD - John Deere AC - Allis Chalmers IH - International MF - Massey Ferguson NH - New Holland VERS - Versatile
 P/H - Pasture/Hayland C/S - Crop/Summerfallow hr - hour ac - acre Fwa - Front wheel assist SP - self propelled PT - pull type
 * Custom costs include operator and are based on one pass per acre unless otherwise stated.

TILLAGE OPERATIONS 1999



2	23	\$110/hr	D	Steiger 4wd 360hp tractor, 2 Kello 300 12' discs one behind the other	P/H, C/S
2	23	\$30/ac	D	Steiger 4wd 360hp tractor, 2 Kello 300 12' discs one behind the other	P/H, C/S Per pass
2	23	\$350/day	D	Rental of Kello 300 series 10' wide disc	
2	23	\$425/day	D	Rental of Kello 400 series 10' wide disc	
2	23	\$475/day	D	Rental of Kello 500 series 10' wide disc	
3	MD87	\$12/ac	P	MF 4wd 210hp tractor, Melroe moldboard 8 bottom plow 16" spacing	P/H
3	MD87	\$220/hr	R	MF 4wd 210hp tractor, Madge rotovator 330HP 8' wide	P/H
3	9	\$45-50/hr	C	Case 2470 4wd 130hp tractor, Case-IH 28' wide deep tillage cultivator	C/S
3	9	\$100/hr	D	D8 Cat with Kello 12' wide breaking disc	P/H
3	29	\$25-26/ac	SS	Cat 95E crawler tractor with 8 shank ripper	P/H, C/S
3	30	\$5-6/ac	C	JD 4wd 175hp tractor, JD Vibrashank 36' wide cultivator	C/S
3	30	\$6/ac	C	JD 4wd 220hp tractor, JD 610 deep tillage 27' wide cultivator	C/S
3	30	\$5/ac	D	JD 4wd 220hp tractor, MF 820 offset 33' wide disc	C/S

C - Cultivating D - Discing P - Plowing H - Harrowing HP - Harrow/packing R - Rototilling SS - Subsoiling LR - Land Rolling
 JD - John Deere AC - Allis Chalmers IH - International MF - Massey Ferguson NH - New Holland VERS - Versatile
 P/H - Pasture/Mayland C/S - Crop/Summerfallow hr - hour ac - acre Fwa - Front wheel assist SP - self propelled PT - pull type
 * Custom costs include operator and are based on one pass per acre unless otherwise stated.

TILLAGE OPERATIONS 1999

3	30	\$3/ac	H	JD 4wd 175hp tractor, Flexicoil 70' wide harrows	C/S
3	30	\$8/ac	P	JD 4wd 220hp tractor, IH 800 10 bottom plow 18" spacing	C/S
3	30	\$10/ac	P	JD 4wd 220hp tractor, IH 800 10 bottom plow 18" spacing	P/H
4	MD77	\$85/hr	C	Versatile 4wd 380hp tractor, Vibrachank 32' wide chisel plow	C/S
4	MD77	\$85/hr	D	Versatile 4wd 380hp tractor, Kello 500 series 12' wide disc	P/H
4	MD77	\$85/hr	D	JD 7710 4wd 130hp tractor, 18' wide field disc	P/H
4	MD77	\$145/hr	D	D8K Cat with Rome TRW 12' wide breaking disc	P/H
4	MD77	\$95/hr	P	D6D Cat with Nordheimer 2 bottom breaking plow 24" spacing	P/H
4	MD77	\$100/hr	R	JD 7710 4wd 130hp tractor with 8' wide rototiller	P/H
4	MD77	\$100/hr	R	JD 7710 4wd 130hp tractor, Kello 10' wide breaking disc	P/H
4	MD92	\$85/hr	C	Case 4490 4wd 180hp tractor, Case 25' wide chisel plow	P/H
4	MD94	\$75/hr	D	Case FWA 175hp tractor, Ezees-On 15' heavy duty disc 28" blades	P/H
4	MD94	\$75/hr	H	Case FWA 175hp tractor, 48' heavy duty tyne harrows	C/S

C - Cultivating D - Discing P - Plowing H - Harrowing HP - Harrow/packing R - Rototilling SS - Subsoiling LR - Land Rolling
 JD - John Deere AC - Allis Chalmers IH - International MF - Massey Ferguson NH - New Holland VERS - Versatile
 P/H - Pasture/Hayland C/S - Crop/Summer-fallow hr - hour ac - acre Fwa - Front wheel assist SP - self propelled PT - pull type
 * Custom costs include operator and are based on one pass per acre unless otherwise stated.

TILLAGE OPERATIONS 1999



4	Parkland	\$50/hr	C	JD 4440 2wd 150hp tractor, Morris 24' wide field cultivator	C/S
4	Parkland	\$60/hr	C	JD 4440 2wd 150hp tractor, Morris 18' wide chisel plow	C/S
4	Parkland	\$100/hr	D	4wd 300hp tractor, JD 28' wide double offset disc	P/H
4	Parkland	\$50/hr	H	JD 4430 2wd 130hp tractor with 50' wide harrows	C/S
4	Strathcona	\$60/hr	D	AC 2wd 110hp dual wheel tractor with Kello 175 heavy duty 13.5' wide disc	P/H
4	10	\$8/ac	C	NH 4wd 360hp tractor, Bourgault 40' wide chisel plow	C/S
4	10	\$12.50/ac	D	Versatile 4wd 300hp tractor, Eze-On 12' wide breaking disc	P/H Per pass
4	10	\$300/day	LR	Rental of Wilrich 40' wide land roller	P/H
4	11	\$70/hr	C	JD 4840 2wd 180hp tractor, IH 45 28' wide field cultivator	C/S
4	11	\$90/hr	R	Case 7110 FWA 140hp tractor, Agri-Tech 10' wide rotator	P/H
4	12	\$75/hr	D	Versatile 876 4wd 280hp tractor, Whishek heavy duty 24' wide tandem disc	P/H Approx. 12 acres/hour
4	12	\$85/hr	D	Versatile 756 4wd 200hp tractor, Rome TAW series 9.5' breaking disc	P/H

C - Cultivating D - Discing P - Plowing H - Harrowing HP - Harrow/packing R - Rototilling SS - Subsoiling LR - Land Rolling
 JD - John Deere AC - Allis Chalmers IH - International MF - Massey Ferguson NH - New Holland VERS - Versatile
 P/H - Pasture/Hayland C/S - Crop/Summerfallow hr - hour ac - acre Fwa - Front wheel assist SP - self propelled PT - pull type
 * Custom costs include operator and are based on one pass per acre unless otherwise stated.

TILLAGE OPERATIONS 1999



4	25	\$110/hr	D	Cat Challenger 75C crawler tractor, Whishek heavy duty 24' disc	P/H
5	MD of Big Lakes	\$90/hr	R	JD 7020 4wd 150hp tractor, Madge 7' wide rotovator	P/H
5	MD19	\$6/ac	C	Vers 835 4wd tractor, Bourgault 36' wide cultivator with harrows behind	C/S
5	MD124	\$145/hr	D	Case 2470 4wd 200hp tractor, Kello 500 series 10' breaking disc	P/H
5	MD124	\$125/hr	P	Case 2470 4wd 200hp tractor, Dika 2 bottom breaking plow 36" spacing	P/H
5	MD135	\$17/ac	D	White 4wd 425hp tractor, Sunflower 40' wide heavy duty disc	P/H

C - Cultivating D - Discing P - Plowing H - Harrowing HP - Harrow/packing R - Rototilling SS - Subsoiling LR - Land Rolling

JD - John Deere AC - Allis Chalmers IH - International MF - Massey Ferguson NH - New Holland VERS - Versatile

P/H - Pasture/Hayland C/S - Crop/Summerfallow hr - hour ac - acre Fwa - Front wheel assist SP - self propelled PT - pull type

* Custom costs include operator and are based on one pass per acre unless otherwise stated.



TILLAGE OPERATIONS 1999

Custom
Rate Operation Equipment

4	Parkland	\$50/hr	C	JD 4440 2wd 150hp tractor, Morris 24' wide field cultivator	C/S
4	Parkland	\$60/hr	C	JD 4440 2wd 150hp tractor, Morris 18' wide chisel plow	C/S
4	Parkland	\$100/hr	D	4wd 300hp tractor, JD 28' wide double offset disc	P/H
4	Parkland	\$50/hr	H	JD 4430 2wd 130hp tractor with 50' wide harrows	C/S
4	Strathcona	\$60/hr	D	AC 2wd 110hp dual wheel tractor with Kello 175 heavy duty 13.5' wide disc	P/H
4	10	\$8/ac	C	NH 4wd 360hp tractor, Bourgault 40' wide chisel plow	C/S
4	10	\$12.50/ac	D	Versatile 4wd 300hp tractor, Ezee-On 12' wide breaking disc	P/H Per pass
4	10	\$300/day	LR	Rental of Wilrich 40' wide land roller	P/H
4	11	\$70/hr	C	JD 4840 2wd 180hp tractor, IH 45 28' wide field cultivator	C/S
4	11	\$90/hr	R	Case 7110 FWA 140hp tractor, Agri-Tech 10' wide rotovator	P/H
4	12	\$75/hr	D	Versatile 876 4wd 280hp tractor, Whishek heavy duty 24' wide tandem disc	P/H Approx. 12 acres/hour
4	12	\$85/hr	D	Versatile 756 4wd 200hp tractor, Rome TAW series 9.5' breaking disc	P/H

C - Cultivating D - Discing P - Plowing H - Harrowing HP - Harrow/packing R - Rototilling SS - Subsoiling LR - Land Rolling
 JD - John Deere AC - Allis Chalmers IH - International MF - Massey Ferguson NH - New Holland VERS - Versatile
 P/H - Pasture/Hayland C/S - Crop/Summerfallow hr - hour ac - acre Fwa - Front wheel assist SP - self propelled PT - pull type
 * Custom costs include operator and are based on one pass per acre unless otherwise stated.

TILLAGE OPERATIONS 1999



Location	County	Custom Cost	Operator	Equipment	Land Type	Notes
4	25	\$110/hr	D	Cat Challenger 75C crawler tractor, Whishek heavy duty 24' disc	P/H	
5	MD of Big Lakes	\$90/hr	R	JD 7020 4wd 150hp tractor, Madge 7' wide rotovator	P/H	
5	MD19	\$6/ac	C	Vers 835 4wd tractor, Bourgault 36' wide cultivator with harrows behind	C/S	
5	MD124	\$145/hr	D	Case 2470 4wd 200hp tractor, Kello 500 series 10' breaking disc	P/H	
5	MD124	\$125/hr	P	Case 2470 4wd 200hp tractor, Dika 2 bottom breaking plow 36" spacing	P/H	
5	MD135	\$17/ac	D	White 4wd 425hp tractor, Sunflower 40' wide heavy duty disc	P/H	

C - Cultivating D - Discing P - Plowing H - Harrowing HP - Harrow/packing R - Rototilling SS - Subsoiling LR - Land Rolling
 JD - John Deere AC - Allis Chalmers IH - International MF - Massey Ferguson NH - New Holland VERS - Versatile
 P/H - Pasture/Hayland C/S - Crop/Summerfallow hr - hour ac - acre Fwa - Front wheel assist SP - self propelled PT - pull type
 * Custom costs include operator and are based on one pass per acre unless otherwise stated.

SOIL TESTING 1999



Custom Cost
(5/4/99)

Types of Application

Notes

1	MD1	\$lab fees only	TM or hand held probe 0-12" depth	4 nutrients or with micro nutrients; lab fees only
1	MD6	30.00-35.00	TM probe 0-24" depth	4 nutrients; lab fees included
1	MD6	40.00-42.00	TM probe 0-16" depth	4 nutrients; lab fees included
1	MD6	50.00	TM or hand held probe 0-12" depth	4 nutrients; lab fees included
1	MD14	\$lab fees only	TM probe 0-48" depth	4 nutrients; 4 depths; sugar beets; lab fees only
1	MD14	45.00	TM probe 0-24" depth	4 nutrients; lab fees included
1	MD14	55.00	TM probe 0-24" depth	With micro nutrients; lab fees included
1	MD14	60.00	TM probe 48" depth	Specialty crops; lab fees included
1	MD14	80.00	TM probe 0-24" depth	4 nutrients; double depth; lab fees included
1	MD14	100.00	TM probe 0-48" depth	4 nutrients; 4 depths; sugar beets; lab fees included
1	MD14	120.00	TM probe 0-24" depth	With micro nutrients; double depth; lab fees included
1	MD14	140.00	TM probe 0-48" depth	With micro nutrients; 4 depth; sugar beets; lab fees included
1	MD26	\$lab fees only	TM probe 0-6" & 6-24" depth	4 nutrients; double depth; lab fees included
1	MD26	35.00	TM probe 0-12" depth	4 nutrients; lab fees included
1	MD26	35.00	TM probe 0-12" depth	4 nutrients; lab fees included
1	MD26	60.00	TM probe 0-12" depth	With micro nutrients; lab fees included

SP - self-propelled PT - pull-type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile
fert - fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour



SOIL TESTING 1999

Quantity	Machine	Analysis	Cost	Notes
1	MD31	\$lab fees only	TM probe 0-8" depth	Lab fees only
1	MD31	30.00	TM probe 0-12" depth	4 nutrients; lab fees included
1	2	\$lab fees only	TM probe 0-24" depth	double depth; lab fees only
1	4	90.00-95.00	TM or hand held probe 0-36" depth	4 nutrients; 3 depths; sugar beets; lab fees included
1	4	45.00	TM or hand held probe 0-12" depth	4 nutrients; lab fees included
1	4	60.00	TM probe 0-6" or 6-24" depth	4 nutrients; double depth; lab fees included
1	4	60.00	TM or hand held probe 0-24" depth	4 nutrients; double depth; lab fees included
1	4	63.00	TM or hand held probe 0-12" depth	With micro nutrients; lab fees included
1	4	65.00	TM probe 0-6" and 12-24" depth	With micro nutrients; double depth; lab fees included
1	4	73.00	TM or hand held probe 0-24" depth	With micro nutrients; double depth; lab fees included
1	5	\$lab fees only	TM or hand held probe 0-12" or 12-24" depth	Free labour with purchase of product
1	5	40.00	TM probe 0-12" depth	4 nutrients; lab fees included
1	8	\$lab fees only	TM or hand held probe 0-12" depth	4 nutrients or with micro nutrients; lab fees only
1	8	30.00	TM probe 0-12" depth	4 nutrients; lab fees included
1	8	35.00	TM probe 0-12" depth	4 nutrients; lab fees included
1	8	40.00	TM probe 0-24" depth	4 nutrients; lab fees included
1	8	56.00	TM probe 48" depth	4 nutrients; sugar beets; lab fees included

SP - self-propelled PT - pull-type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile
fert - fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour

SOIL TESTING 1999



1	MD1	\$lab fees only	TM or hand held probe 0-12" depth	4 nutrients or with micro nutrients; lab fees only
1	MD6	30.00-35.00	TM probe 0-24" depth	4 nutrients; lab fees included
1	MD6	40.00-42.00	TM probe 0-16" depth	4 nutrients; lab fees included
1	MD6	50.00	TM or hand held probe 0-12" depth	4 nutrients; lab fees included
1	MD14	\$lab fees only	TM probe 0-48" depth	4 nutrients; 4 depths; sugar beets; lab fees only
1	MD14	45.00	TM probe 0-24" depth	4 nutrients; lab fees included
1	MD14	55.00	TM probe 0-24" depth	With micro nutrients; lab fees included
1	MD14	60.00	TM probe 48" depth	Specialty crops; lab fees included
1	MD14	80.00	TM probe 0-24" depth	4 nutrients; double depth; lab fees included
1	MD14	100.00	TM probe 0-48" depth	4 nutrients; 4 depths; sugar beets; lab fees included
1	MD14	120.00	TM probe 0-24" depth	With micro nutrients; double depth; lab fees included
1	MD14	140.00	TM probe 0-48" depth	With micro nutrients; 4 depths; sugar beets; lab fees included
1	MD26	\$lab fees only	TM probe 0-6" & 6-24" depth	4 nutrients; double depth; lab fees included
1	MD26	35.00	TM probe 0-12" depth	4 nutrients; lab fees included
1	MD26	35.00	TM probe 0-12" depth	4 nutrients; lab fees included
1	MD26	60.00	TM probe 0-12" depth	With micro nutrients; lab fees included

SP - self-propelled PT - pull-type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile
fert - fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour

SOIL TESTING 1999



1	MD31	\$lab fees only	TM probe 0-8" depth	Lab fees only
1	MD31	30.00	TM probe 0-12" depth	4 nutrients; lab fees included
1	2	\$lab fees only	TM probe 0-24" depth	double depth; lab fees only
1	4	90.00-95.00	TM or hand held probe 0-36" depth	4 nutrients; 3 depths; sugar beets; lab fees included
1	4	45.00	TM or hand held probe 0-12" depth	4 nutrients; lab fees included
1	4	60.00	TM probe 0-6" or 6-24" depth	4 nutrients; double depth; lab fees included
1	4	60.00	TM or hand held probe 0-24" depth	4 nutrients; double depth; lab fees included
1	4	63.00	TM or hand held probe 0-12" depth	With micro nutrients; lab fees included
1	4	65.00	TM probe 0-6" and 12-24" depth	With micro nutrients; double depth; lab fees included
1	4	73.00	TM or hand held probe 0-24" depth	With micro nutrients; double depth; lab fees included
1	5	\$lab fees only	TM or hand held probe 0-12" or 12-24" depth	Free labour with purchase of product
1	5	40.00	TM probe 0-12" depth	4 nutrients; lab fees included
1	8	\$lab fees only	TM or hand held probe 0-12" depth	4 nutrients or with micro nutrients; lab fees only
1	8	30.00	TM probe 0-12" depth	4 nutrients; lab fees included
1	8	35.00	TM probe 0-12" depth	4 nutrients; lab fees included
1	8	40.00	TM probe 0-24" depth	4 nutrients; lab fees included
1	8	56.00	TM probe 48" depth	4 nutrients; sugar beets; lab fees included

SP - self-propelled PT - pull-type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile
fert - fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour



SOIL TESTING 1999

1	16	\$lab fees only	TM or hand held probe 0-6" or 0-12" depth	4 nutrients or with micro nutrients; lab fees only
1	16	\$lab fees only	TM probe 0-6" depth	4 nutrients or with micro nutrients; lab fees only
1	16	55.00	Hand held probe 0-12" and 12-24" depth	With micro nutrients; single depth; lab fees included
1	16	65.00	TM or hand held probe 0-12" depth	4 nutrients; lab fees included
1	16	65.00	Hand held probe 0-12" and 12-24" depth	With micro nutrients; double depth; lab fees included
1	26	\$lab fees only	TM or hand held probe 0-12" depth	Lab fees only
1	26	30.00	TM or hand held probe 0-12" depth	4 nutrients; lab fees included
1	26	30.00	Hand held probe 0-12" depth	4 nutrients; single depth; lab fees included
1	26	35.00	TM probe 0-12" depth	4 nutrients; single depth; lab fees included
1	26	40.00	TM probe 0-12" and 12-24" depth	4 nutrients; double depth; lab fees included
1	26	40.00	TM probe 12-24" depth	4 nutrients; double depth; lab fees included
1	26	42.00	TM probe 0-12" depth	4 nutrients; lab fees included
1	26	45.00	TM probe 12-24" depth	4 nutrients; double depth; lab fees included
1	26	56.00	TM probe 0-12" depth	With micro nutrients; lab fees included
1	26	60.00	TM probe 48" depth	4 nutrients; sugar beets; lab fees included
1	26	60.00	TM probe 12-24" depth	With micro nutrients; double depth; lab fees included

SP - self-propelled PT - pull-type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile
fert - fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour

SOIL TESTING 1999



2	Lacombe	1.00/ac	Hand held probe 0-6" GPS coordinated	Plus lab fees
2	Lacombe	3.00-4.00	TM probe 0-6" depth	Plus lab fees
2	Lacombe	5.00	TM probe 0-6" or 0-12" depth	Plus lab fees
2	Lacombe	40.00	TM probe 0-12" depth	4 nutrients; lab fees included
2	Lacombe	55.00	TM probe 0-12" depth	With micro nutrients; lab fees included
2	Lacombe	65.00	Hand held 0-6" depth	With micro nutrients; lab fees included
2	MD44	\$lab fees only	Hand held probe 0-6" depth	Free labour with purchase of product
2	MD44	15.00	TM probe 6-12" depth	4 nutrients or with micro nutrients; plus lab fees
2	MD44	65.00	TM probe 0-6" depth	With micro nutrients; lab fees included
2	MD47	30.00	TM probe 0-12" depth	4 nutrients; lab fees included
2	MD47	45.00	TM probe 0-12" depth	With micro nutrients; lab fees included
2	MD48	\$lab fees only	Hand held probe 0-6" depth	Free labour with purchase of product
2	MD48	10.00	Hand held probe 0-6" depth	Plus lab fees
2	MD48	45.00	Hand held probe 0-6" depth	4 nutrients; lab fees included
2	MD48	45.00	Hand held probe 0-12" depth	4 nutrients; lab fees included
2	MD48	60.00	Hand held probe 0-6" depth	With micro nutrients; lab fees included
2	MD48	80.00	Hand held probe 0-6" depth	With micro nutrients; lab fees included

SP - self-propelled PT - pull-type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile
fert - fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour

SOIL TESTING 1999



Custom Cost
(\$/Acre)

Type of Application

Notes

1	16	\$lab fees only	TM or hand held probe 0-6" or 0-12" depth	4 nutrients or with micro nutrients; lab fees only
1	16	\$lab fees only	TM probe 0-6" depth	4 nutrients or with micro nutrients; lab fees only
1	16	55.00	Hand held probe 0-12" and 12-24" depth	With micro nutrients; single depth; lab fees included
1	16	65.00	TM or hand held probe 0-12" depth	4 nutrients; lab fees included
1	16	65.00	Hand held probe 0-12" and 12-24" depth	With micro nutrients; double depth; lab fees included
1	26	\$lab fees only	TM or hand held probe 0-12" depth	Lab fees only
1	26	30.00	TM or hand held probe 0-12" depth	4 nutrients; lab fees included
1	26	30.00	Hand held probe 0-12" depth	4 nutrients; single depth; lab fees included
1	26	35.00	TM probe 0-12" depth	4 nutrients; single depth; lab fees included
1	26	40.00	TM probe 0-12" and 12-24" depth	4 nutrients; double depth; lab fees included
1	26	40.00	TM probe 12-24" depth	4 nutrients; double depth; lab fees included
1	26	42.00	TM probe 0-12" depth	4 nutrients; lab fees included
1	26	45.00	TM probe 12-24" depth	4 nutrients; double depth; lab fees included
1	26	56.00	TM probe 0-12" depth	With micro nutrients; lab fees included
1	26	60.00	TM probe 48" depth	4 nutrients; sugar beets; lab fees included
1	26	60.00	TM probe 12-24" depth	With micro nutrients; double depth; lab fees included

SP - self-propelled PT - pull-type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile
fert - fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour



SOIL TESTING 1999

Region: County: Custom Cost (\$/field) Type of Application: Notes

2	Lacombe	1.00/ac	Hand held probe 0-6" GPS coordinated	Plus lab fees
2	Lacombe	3.00-4.00	TM probe 0-6" depth	Plus lab fees
2	Lacombe	5.00	TM probe 0-6" or 0-12" depth	Plus lab fees
2	Lacombe	40.00	TM probe 0-12" depth	4 nutrients; lab fees included
2	Lacombe	55.00	TM probe 0-12" depth	With micro nutrients; lab fees included
2	Lacombe	65.00	Hand held 0-6" depth	With micro nutrients; lab fees included
2	MD44	\$lab fees only	Hand held probe 0-6" depth	Free labour with purchase of product
2	MD44	15.00	TM probe 6-12" depth	4 nutrients or with micro nutrients; plus lab fees
2	MD44	65.00	TM probe 0-6" depth	With micro nutrients; lab fees included
2	MD47	30.00	TM probe 0-12" depth	4 nutrients; lab fees included
2	MD47	45.00	TM probe 0-12" depth	With micro nutrients; lab fees included
2	MD48	\$lab fees only	Hand held probe 0-6" depth	Free labour with purchase of product
2	MD48	10.00	Hand held probe 0-6" depth	Plus lab fees
2	MD48	45.00	Hand held probe 0-6" depth	4 nutrients; lab fees included
2	MD48	45.00	Hand held probe 0-12" depth	4 nutrients; lab fees included
2	MD48	60.00	Hand held probe 0-6" depth	With micro nutrients; lab fees included
2	MD48	80.00	Hand held probe 0-6" depth	With micro nutrients; lab fees included

SP - self-propelled PT - pull-type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile
fert - fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour

SOIL TESTING 1999



Minimum Cost
(\$/acre)

Depth

Notes

2	MD99	50.00	TM probe 0-12" depth	4 nutrients; lab fees included
2	MD99	35.00	TM or hand held probe 6-12" depth	4 nutrients; lab fees included
2	SA4	15.00	Hand held probe 0-12" depth	Plus lab fees
2	3	35.00	TM probe 0-6" depth	4 nutrients; lab fees included
2	3	50.00	TM probe 0-6" depth	With micro nutrients; lab fees included
2	3	70.00	Hand held probe 0-6" or 0-12" depth	With micro nutrients; lab fees included
2	6	44.00	TM probe 0-12" depth	With micro nutrients; lab fees included
2	17	1.00/ac	Hand held probe 0-12" depth	4 nutrients; lab fees included
2	17	50.00-55.00	Hand held probe 0-6" depth	With micro nutrients; lab fees included
2	17	26.00	Hand held probe 0-6" depth	4 nutrients; lab fees included
2	17	30.00	Hand held probe 0-6" depth	4 nutrients; lab fees included
2	17	35.00	TM Concorde probe 0-12" depth	4 nutrients; lab fees included
2	17	40.00	Hand held probe 0-6" depth	4 nutrients; lab fees included
2	17	45.00	Hand held probe 0-6" depth	With micro nutrients; lab fees included
2	17	60.00	TM or hand held probe 0-6" depth	With micro nutrients; lab fees included
2	17	60.00	Hand held probe 0-6" depth	With micro nutrients; lab fees included
2	17	75.00	Hand held probe 0-6" depth	With micro nutrients; lab fees included

SP - self-propelled PT - pull-type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile
fert - fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour



SOIL TESTING 1999

Region	County	Custom Cost (\$/acre)	Type of Application	Notes
2	23	\$lab fees only	Hand held probe 0-6" depth	Free labour with purchase of product
2	23	\$lab fees only	Hand held probe 0-6" depth	Free labour with purchase of product
2	23	35.00	Hand held probe 0-6" depth	4 nutrients; lab fees included
2	23	40.00	Hand held probe 0-6" depth	4 nutrients; lab fees included
2	23	40.00	Hand held probe 0-6" depth	4 nutrients; lab fees included
2	23	48.00	Hand held probe 0-6" depth	With micro nutrients; lab fees included
2	23	60.00	Hand held probe 0-6" depth	With micro nutrients; lab fees included
2	23	60.00	Hand held probe 0-6" depth	With micro nutrients; lab fees included
2	23	60.00	Hand held probe 0-6" or 6-12" depth	With micro nutrients; lab fees included
2	23	65.00	Hand held probe 0-6" depth	With micro nutrients; lab fees included
3	MD52	\$lab fees only	Hand held probe 0-12" depth	Free labour with purchase of product
3	MD52	\$lab fees only	Hand held probe 0-6" depth	Free labour with purchase of product
3	MD52	40.00	TM or hand held probe 0-12" depth	4 nutrients; lab fees included
3	MD52	50.00	Hand held probe 0-8" depth	With micro nutrients; lab fees included
3	MD52	60.00	TM or hand held probe 0-12" depth	With micro nutrients; lab fees included
3	9	35.00	TM probe 0-12" depth	4 nutrients; lab fees included
3	9	60.00	TM probe 0-12" depth	With micro nutrients; lab fees included
SP - self-propelled PT - pull-type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile fert - fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour				

SOIL TESTING 1999



2	MD99	50.00	TM probe 0-12" depth	4 nutrients; lab fees included
2	MD99	35.00	TM or hand held probe 6-12" depth	4 nutrients; lab fees included
2	SA4	15.00	Hand held probe 0-12" depth	Plus lab fees
2	3	35.00	TM probe 0-6" depth	4 nutrients; lab fees included
2	3	50.00	TM probe 0-6" depth	With micro nutrients; lab fees included
2	3	70.00	Hand held probe 0-6" or 0-12" depth	With micro nutrients; lab fees included
2	6	44.00	TM probe 0-12" depth	With micro nutrients; lab fees included
2	17	1.00/ac	Hand held probe 0-12" depth	4 nutrients; lab fees included
2	17	50.00-55.00	Hand held probe 0-6" depth	With micro nutrients; lab fees included
2	17	26.00	Hand held probe 0-6" depth	4 nutrients; lab fees included
2	17	30.00	Hand held probe 0-6" depth	4 nutrients; lab fees included
2	17	35.00	TM Concorde probe 0-12" depth	4 nutrients; lab fees included
2	17	40.00	Hand held probe 0-6" depth	4 nutrients; lab fees included
2	17	45.00	Hand held probe 0-6" depth	With micro nutrients; lab fees included
2	17	60.00	TM or hand held probe 0-6" depth	With micro nutrients; lab fees included
2	17	60.00	Hand held probe 0-6" depth	With micro nutrients; lab fees included
2	17	75.00	Hand held probe 0-6" depth	With micro nutrients; lab fees included

SP - self-propelled PT - pull-type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile
fert - fertilizer herb - herbicide G- granular L - liquid A - anhydrous ac - acre hr - hour



SOIL TESTING 1999

2	23	\$lab fees only	Hand held probe 0-6" depth	Free labour with purchase of product
2	23	\$lab fees only	Hand held probe 0-6" depth	Free labour with purchase of product
2	23	35.00	Hand held probe 0-6" depth	4 nutrients; lab fees included
2	23	40.00	Hand held probe 0-6" depth	4 nutrients; lab fees included
2	23	40.00	Hand held probe 0-6" depth	4 nutrients; lab fees included
2	23	48.00	Hand held probe 0-6" depth	With micro nutrients; lab fees included
2	23	60.00	Hand held probe 0-6" depth	With micro nutrients; lab fees included
2	23	60.00	Hand held probe 0-6" depth	With micro nutrients; lab fees included
2	23	60.00	Hand held probe 0-6" or 6-12" depth	With micro nutrients; lab fees included
2	23	65.00	Hand held probe 0-6" depth	With micro nutrients; lab fees included

3	MD52	\$lab fees only	Hand held probe 0-12" depth	Free labour with purchase of product
3	MD52	\$lab fees only	Hand held probe 0-6" depth	Free labour with purchase of product
3	MD52	40.00	TM or hand held probe 0-12" depth	4 nutrients; lab fees included
3	MD52	50.00	Hand held probe 0-8" depth	With micro nutrients; lab fees included
3	MD52	60.00	TM or hand held probe 0-12" depth	With micro nutrients; lab fees included
3	9	35.00	TM probe 0-12" depth	4 nutrients; lab fees included
3	9	60.00	TM probe 0-12" depth	With micro nutrients; lab fees included

SP - self-propelled PT - pull-type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile
fert - fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour

SOIL TESTING 1999



3	13	35.00	Hand held probe 0-6" depth	4 nutrients; lab fees included
3	13	55.00	Hand held probe 0-6" depth	With micro nutrients; lab fees included
3	19	40.00	Hand held probe 0-6" depth	4 nutrients; lab fees included
3	19	50.00	Hand held probe 0-6" depth	With micro nutrients; lab fees included
3	22	10.00	TM or hand held probe 0-12" depth	Plus lab fees
3	22	35.00	TM probe 0-12" depth	4 nutrients; lab fees included
3	22	40.00	TM probe 0-6" depth	4 nutrients; lab fees included
3	22	45.00	Hand held probe 0-12" depth	With micro nutrients; lab fees included
3	22	56.00	TM probe 0-6" depth	With micro nutrients; lab fees included
3	22	70.00	TM or hand held probe 0-12" depth	With micro nutrients; lab fees included
3	24	20.00	TM probe 0-12" depth	4 nutrients; with purchase of product; lab fees only
3	24	40.00	TM probe 0-12" depth	4 nutrients; lab fees included
3	24	45.00	TM probe 0-12" depth	With micro nutrients; with purchase of product; lab fees only
3	24	56.00	TM probe 0-12" depth	With micro nutrients; lab fees included
3	24	80.00	Hand held probe 0-6" depth	With micro nutrients; lab fees included
3	27	25.00	TM probe 0-6" depth	4 nutrients; lab fees included

SP - self-propelled PT - pull-type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile
fert - fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour

SOIL TESTING 1999



Notes:

Hand held probe 0-6" depth

30.00

29

3

4 nutrients; lab fees included
With micro nutrients; lab fees included
With micro nutrients; lab fees included

Hand held probe 0-6" depth
Hand held probe 0-6" depth
Hand held probe 0-6" depth

30.00
40.00
45.00

29
29
29

3
3
3

4 nutrients; lab fees included

Hand held probe 0-6" depth

30.00

Loc Site Anne

4

4 nutrients or with micro nutrients; plus lab fees

TM probe 0-6" depth

10.00

MD90

4

4 nutrients; lab fees included

TM probe 0-12" depth

25.00

MD90

4

4 nutrients; lab fees included

Hand held probe 0-12" depth

35.00

MD90

4

4 nutrients; lab fees included

Hand held probe 0-12" depth (8" usually)

40.00

MD90

4

4 nutrients; lab fees included

TM or hand held probe 0-8" depth

26.00

MD92

4

4 nutrients; lab fees included

TM probe 0-12" depth

30.00

MD92

4

With micro nutrients; lab fees included

TM probe 0-12" depth

45.00

MD92

4

4 nutrients; lab fees included

TM probe 0-6" depth

35.00-40.00

Parkland

4

4 nutrients or with micro nutrients; plus lab fees

TM probe 0-6" depth

10.00

Parkland

4

4 nutrients; lab fees included

Hand held probe 0-6" depth

30.00

Strathcona

4

With micro nutrients; lab fees included

Hand held probe 0-6" depth

50.00

Strathcona

4

SP - self-propelled PT - pull-type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile
fert - fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour



SOIL TESTING 1999

Quantity Custom Cost Type of Application

3	13	35.00	Hand held probe 0-6" depth	4 nutrients; lab fees included
3	13	55.00	Hand held probe 0-6" depth	With micro nutrients; lab fees included
3	19	40.00	Hand held probe 0-6" depth	4 nutrients; lab fees included
3	19	50.00	Hand held probe 0-6" depth	With micro nutrients; lab fees included
3	22	10.00	TM or hand held probe 0-12" depth	Plus lab fees
3	22	35.00	TM probe 0-12" depth	4 nutrients; lab fees included
3	22	40.00	TM probe 0-6" depth	4 nutrients; lab fees included
3	22	45.00	Hand held probe 0-12" depth	With micro nutrients; lab fees included
3	22	56.00	TM probe 0-6" depth	With micro nutrients; lab fees included
3	22	70.00	TM or hand held probe 0-12" depth	With micro nutrients; lab fees included
3	24	20.00	TM probe 0-12" depth	4 nutrients; with purchase of product; lab fees only
3	24	40.00	TM probe 0-12" depth	4 nutrients; lab fees included
3	24	45.00	TM probe 0-12" depth	With micro nutrients; with purchase of product; lab fees only
3	24	56.00	TM probe 0-12" depth	With micro nutrients; lab fees included
3	24	80.00	Hand held probe 0-6" depth	With micro nutrients; lab fees included
3	27	25.00	TM probe 0-6" depth	4 nutrients; lab fees included

SP - self-propelled PT - pull-type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile
fert - fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour



SOIL TESTING 1999

Region	County	Custom Cost (\$/field)	Type of Application	Notes
3	29	30.00	Hand held probe 0-6" depth	4 nutrients; lab fees included
3	29	40.00	Hand held probe 0-6" depth	With micro nutrients; lab fees included
3	29	45.00	Hand held probe 0-6" depth	With micro nutrients; lab fees included
4	Lac Ste Anne	30.00	Hand held probe 0-6" depth	4 nutrients; lab fees included
4	MD90	10.00	TM probe 0-6" depth	4 nutrients or with micro nutrients; plus lab fees
4	MD90	25.00	TM probe 0-12" depth	4 nutrients; lab fees included
4	MD90	35.00	Hand held probe 0-12" depth	4 nutrients; lab fees included
4	MD90	40.00	Hand held probe 0-12" depth (8" usually)	4 nutrients; lab fees included
4	MD92	26.00	TM or hand held probe 0-8" depth	4 nutrients; lab fees included
4	MD92	30.00	TM probe 0-12" depth	4 nutrients; lab fees included
4	MD92	45.00	TM probe 0-12" depth	With micro nutrients; lab fees included
4	Parkland	35.00-40.00	TM probe 0-6" depth	4 nutrients; lab fees included
4	Parkland	10.00	TM probe 0-6" depth	4 nutrients or with micro nutrients; plus lab fees
4	Strathcona	30.00	Hand held probe 0-6" depth	4 nutrients; lab fees included
4	Strathcona	50.00	Hand held probe 0-6" depth	With micro nutrients; lab fees included

SP - self-propelled PT - pull-type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile
fert - fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour

SOIL TESTING 1999



Machine (50.00/40.00)

Probe or Application

Notes

4	11	35.00	Hand held probe 0-6" depth	4 nutrients; lab fees included
4	11	45.00	Hand held probe 0-6" depth	With micro nutrients; lab fees included
4	11	50.00	TM probe 0-6" depth	4 nutrients; lab fees included
4	11	60.00	Hand held probe 0-6" depth	With micro nutrients; lab fees included
4	25	35.00-40.00	TM probe 0-6" depth	4 nutrients; lab fees included
4	25	10.00	TM probe 0-6" depth	4 nutrients or with micro nutrients; plus lab fees
5	MD131	30.00	TM or hand held probe 0-12" depth	4 nutrients; lab fees included; free with purchase if farmer brings in sample
5	MD133	30.00	Hand held probe 0-6" depth	4 nutrients; lab fees included
5	MD136	30.00	Hand held probe 0-6" depth	4 nutrients; lab fees included
5	1	22.00	Hand held probe 0-6" depth	4 nutrients; lab fees included
5	1	40.00	TM probe 0-12" depth	4 nutrients; lab fees included
5	1	55.00	Hand held probe 0-6" depth	With micro nutrients; lab fees included

SP - self-propelled PT - pull-type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile

fert - fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour



CROP SEEDING 1999

Quantity Custom (Gals. (G/ha)) Type Application Notes

1	MD1	3.50	Truck mounted Valmar	Forages or canola
1	MD9	10.00	Tractor, Bourgault 9200 with 325 tank and coil packers	Direct min-till seeding barley with granular fertilizer and packing
1	MD14	4.50	Lor-al floater	Canola or forages; with granular fertilizer
1	MD14	10.00	Tractor, Bourgault 41' air seeder	Direct seeding cereals
1	MD14	12.00	Tractor, Bourgault 41' air seeder	Direct seeding cereals; with granular fertilizer
1	MD26	4.00	Terrigator floater	Cereals, oilseeds or forages
1	MD26	4.50	Terrigator floater	Canola
1	MD26	7.00	Tractor, IH 7200 28' hoe drill	Cereals
1	MD26	10.00	Tractor, Morris air seeder	Cereals or canola with granular fertilizer
1	MD31	4.00	Lor-al floater	Forages or canola; with granular fertilizer
1	MD31	4.00	Lor-al floater	Canola or forages; with granular fertilizer
1	MD31	4.50	Lor-al floater	Canola or forages; with granular fertilizer
1	MD31	4.50	Lor-al floater	Cereals, canola or forages; with granular fertilizer
1	MD31	7.00	Tractor, IH 8500 45' air drill	Direct seeding cereals; with granular fertilizer
1	MD31	7.50	Tractor, JD hoe drill	Cereals; with granular fertilizer

SP - self propelled PT - pull type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile cult - cultivator
fert - fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour



SOIL TESTING 1999

4	11	35.00	Hand held probe 0-6" depth	4 nutrients; lab fees included
4	11	45.00	Hand held probe 0-6" depth	With micro nutrients; lab fees included
4	11	50.00	TM probe 0-6" depth	4 nutrients; lab fees included
4	11	60.00	Hand held probe 0-6" depth	With micro nutrients; lab fees included
4	25	35.00-40.00	TM probe 0-6" depth	4 nutrients; lab fees included
4	25	10.00	TM probe 0-6" depth	4 nutrients or with micro nutrients; plus lab fees
5	MD131	30.00	TM or hand held probe 0-12" depth	4 nutrients; lab fees included; free with purchase if farmer brings in sample
5	MD133	30.00	Hand held probe 0-6" depth	4 nutrients; lab fees included
5	MD136	30.00	Hand held probe 0-6" depth	4 nutrients; lab fees included
5	1	22.00	Hand held probe 0-6" depth	4 nutrients; lab fees included
5	1	40.00	TM probe 0-12" depth	4 nutrients; lab fees included
5	1	55.00	Hand held probe 0-6" depth	With micro nutrients; lab fees included

SP - self-propelled PT - pull-type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile
fert - fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour

CROP SEEDING 1999



1	MD1	3.50	Truck mounted Valmar	Forages or canola
1	MD9	10.00	Tractor, Bourgault 9200 with 325 tank and coil packers	Direct min-till seeding barley with granular fertilizer and packing
1	MD14	4.50	Lor-al floater	Canola or forages; with granular fertilizer
1	MD14	10.00	Tractor, Bourgault 41' air seeder	Direct seeding cereals
1	MD14	12.00	Tractor, Bourgault 41' air seeder	Direct seeding cereals; with granular fertilizer
1	MD26	4.00	Terrigator floater	Cereals, oilseeds or forages
1	MD26	4.50	Terrigator floater	Canola
1	MD26	7.00	Tractor, IH 7200 28' hoe drill	Cereals
1	MD26	10.00	Tractor, Morris air seeder	Cereals or canola with granular fertilizer
1	MD31	4.00	Lor-al floater	Forages or canola; with granular fertilizer
1	MD31	4.00	Lor-al floater	Canola or forages, with granular fertilizer
1	MD31	4.50	Lor-al floater	Canola or forages; with granular fertilizer
1	MD31	4.50	Lor-al floater	Cereals, canola or forages; with granular fertilizer
1	MD31	7.00	Tractor, IH 8500 45' air drill	Direct seeding cereals; with granular fertilizer
1	MD31	7.50	Tractor, JD hoe drill	Cereals; with granular fertilizer

SP - self propelled PT - pull type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile cult - cultivator
fert- fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour

CROP SEEDING 1999



1	MD31	9.00	Tractor, IH 8500 45' air drill	Direct seeding canola; with granular fertilizer
1	MD31	10.00	Tractor, JD 9350 hoe drill	Cereals with granular fertilizer
1	MD31	10.00	Tractor, 33' Case-IH 8500 air drill	Direct seeding cereals; with granular fertilizer
1	2	4.50	Lor-al floater	Oilseeds, grasses with granular fertilizer
1	2	4.50	Lor-al floater	Cereals, oilseeds or forages; with granular fertilizer
1	2	4.50	Lor-al floater	Forages or canola; with granular fertilizer
1	2	6.00	Tractor, JD 1810 air seeder	Cereals
1	4	4.00	Tractor, JD 26' hoe drill	Cereals
1	4	4.50	Lor-al floater	Forages or canola
1	4	4.50	Lor-al floater	Canola
1	4	5.00	FW Air Tractor or Thrush aircraft	Under 15 lbs application per acre
1	4	5.00	FW Thrush aircraft	Forages or oilseeds; with or w/o fertilizer (applied at 10lbs/ac)
1	4	5.50	Tractor, JD 350 25' disc with JD 26' hoe drill	Cereals
1	4	6.00	Terrigator floater	Forages or canola; with granular fertilizer
1	4	6.00	Stelger 9280 4wd 375hp tractor, Case 70' hoe drill	Cereals
1	4	8.00	Tractor, JD 30' hoe drill	Direct seeding cereals

SP - self propelled PT - pull type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile cult - cultivator
fert- fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour

CROP SEEDING 1999



1	4	10.00	Tractor, 62' Bourgault air drill	Direct seeding cereals; with granular fertilizer
1	4	12.00	Tractor, 28' Versatile 2200 drill	Direct seeding cereals
1	4	15.00	Cat Challenger with Bourgault 28' air seeder	Direct seeding cereals or oilseeds; with granular fertilizer
1	4	15.00	Tractor, Flexicoil 6000 air seeder	Direct seeding cereals or oilseeds; with granular fertilizer
1	4	15.00	Tractor, JD 750 no-till seeder	Good neighbor rate; one pass direct no-till; with granular fertilizer
1	5	4.00	Willmar spin spreader floater truck	Forages or canola
1	5	4.25	Willmar spin spreader floater truck	Forages or canola; with granular fertilizer or herbicide
1	8	3.50	Truck mounted Valmar	Forages or canola
1	8	5.00	Lor-al floater	Forages or canola; with granular fertilizer
1	8	10.00	Tractor, Flexicoil air seeder	Direct seeding cereals or canola; with granular fertilizer
1	8	15.00	Cat Challenger with Bourgault 28' air seeder	Direct seeding cereals or canola; with granular fertilizer
1	16	4.00	Lor-al floater	Forages or canola; with granular fertilizer
1	16	4.00	Lor-al floater	Forages; with granular fertilizer
1	16	4.50	Lor-al floater	Forages or canola; with granular fertilizer and herbicide
1	16	10.00	Tractor, Flexicoil air drill	Direct seeding cereals, oilseeds or pulses; with granular fertilizer
1	16	20.00	4wd tractor, JD 28' air seeder & FWA tractor, 40' harrow/packers	4 passes - seed, then harrow pack, deep banding fert, then harrow/pack; complete seeding

SP - self propelled PT - pull type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile cult - cultivator
fert- fertilizer herb- herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour

CROP SEEDING 1999



Model Capacity (5/acre) Type of Applicator

Notes

1	MD31	9.00	Tractor, IH 8500 45' air drill	Direct seeding canola: with granular fertilizer
1	MD31	10.00	Tractor, JD 9350 hoe drill	Cereals: with granular fertilizer
1	MD31	10.00	Tractor, 33' Case-IH 8500 air drill	Direct seeding cereals: with granular fertilizer
1	2	4.50	Lor-al floater	Oilseeds, grasses with granular fertilizer
1	2	4.50	Lor-al floater	Cereals, oilseeds or forages: with granular fertilizer
1	2	4.50	Lor-al floater	Forages or canola: with granular fertilizer
1	2	6.00	Tractor, JD 1810 air seeder	Cereals
1	4	4.00	Tractor, JD 26' hoe drill	Cereals
1	4	4.50	Lor-al floater	Forages or canola
1	4	4.50	Lor-al floater	Canola
1	4	5.00	FW Air Tractor or Thrush aircraft	Under 15 lbs application per acre
1	4	5.00	FW Thrush aircraft	Forages or oilseeds: with or w/o fertilizer (applied at 10lbs/ac)
1	4	5.50	Tractor, JD 350 25' disc with JD 26' hoe drill	Cereals
1	4	6.00	Terrigator floater	Forages or canola: with granular fertilizer
1	4	6.00	Steiger 9280 4wd 375hp tractor, Case 70' hoe drill	Cereals
1	4	8.00	Tractor, JD 30' hoe drill	Direct seeding cereals

SP - self propelled PT - pull type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile cult - cultivator
fert- fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour

CROP SEEDING 1999



Region	Quantity	Custom Cost (\$/ac)	Type of Application	Note
1	4	10.00	Tractor, 62' Bourgault air drill	Direct seeding cereals; with granular fertilizer
1	4	12.00	Tractor, 28' Versatile 2200 drill	Direct seeding cereals
1	4	15.00	Cat Challenger with Bourgault 28' air seeder	Direct seeding cereals or oilseeds; with granular fertilizer
1	4	15.00	Tractor, Flexicoil 6000 air seeder	Direct seeding cereals or oilseeds; with granular fertilizer
1	4	15.00	Tractor, JD 750 no-till seeder	Good neighbor rate: one pass direct no-till; with granular fertilizer
1	5	4.00	Willmar spin spreader floater truck	Forages or canola
1	5	4.25	Willmar spin spreader floater truck	Forages or canola; with granular fertilizer or herbicide
1	8	3.50	Truck mounted Valmar	Forages or canola
1	8	5.00	Lor-al floater	Forages or canola; with granular fertilizer
1	8	10.00	Tractor, Flexicoil air seeder	Direct seeding cereals or canola; with granular fertilizer
1	8	15.00	Cat Challenger with Bourgault 28' air seeder	Direct seeding cereals or canola; with granular fertilizer
1	16	4.00	Lor-al floater	Forages or canola; with granular fertilizer
1	16	4.00	Lor-al floater	Forages; with granular fertilizer
1	16	4.50	Lor-al floater	Forages or canola; with granular fertilizer and herbicide
1	16	10.00	Tractor, Flexicoil air drill	Direct seeding cereals, oilseeds or pulses; with granular fertilizer
1	16	20.00	4wd tractor, JD 28' air seeder & FWA tractor, 40' harrow/packers	4 passes - seed, then harrow pack, deep banding fert, then harrow/pack; complete seeding
SP - self propelled PT - pull type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile cult - cultivator fert - fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour				

CROP SEEDING 1999



Model, Horsepower, Cost (\$/ac), Type of Application, Notes

1	26	4.50	Lor-al floater	Forages; with granular fertilizer
1	26	4.50	Lor-al floater	Forages or canola
1	26	4.50	Lor-al floater	Forages or canola; with granular fertilizer
1	26	5.00	Terrigator floater	Forages or canola; with granular fertilizer
1	26	5.50	Lor-al floater	Forages or canola; with granular fertilizer
1	26	6.00	Tractor, Case-IH 7200 hoe drill	Cereals
1	26	8.00	Versatile 835 tractor, Bourgault 5710 35' air drill	Direct seeding cereals, oilseeds or pulses; with granular fertilizer
1	26	10.00	Tractor, Bourgault 5710 air drill	Direct seeding cereals; with granular fertilizer
2		10.00	Tractor, Conservapac zero-till air drill	Good neighbor rate; direct min-till seeding cereals; with granular and anhydrous fertilizer
2	Calgary	9.00-10.00	Tractor, 32' JD tandem air disc (modified)	Discing and seeding cereals or canola
2	Calgary	10.00	Tractor, Conservapac air drill	Direct no-till seeding cereals; with granular and anhydrous fertilizer
2	Calgary	10.00-12.00	Tractor, 32' JD tandem air disc (modified) with liquid fertilizer applicator	Discing and seeding cereals or canola; with liquid fertilizer
2	Calgary	115/hr	Tractor, 32' JD tandem air disc (modified)	Discing and seeding cereals or canola
2	Calgary	125/hr	Tractor, 32' JD tandem air disc (modified) with liquid fertilizer applicator	Discing and seeding cereals or canola; with liquid fertilizer

SP - self propelled PT - pull type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile cult - cultivator
fert - fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour

CROP SEEDING 1999



Region	County	Custom Cost (\$/ac)	Type of Application	Notes
2	Lacomb	3.75	Lor-al floater	Forages; with granular fertilizer
2	Lacomb	4.00	Tyler floater	Forages or canola; with granular fertilizer
2	Lacomb	4.50	Tyler floater	Forages or canola; with granular fertilizer
2	Lacomb	12.00	Tractor, 32' Harman air drill 12" spacing, paired rows with cold flow kit	Direct no-till seeding cereals, oilseeds or pulses with anhydrous fertilizer
2	Lacomb	12.00-13.00	Tractor, 24' Harman no-till seeder with 8" spacing with paired rows	Direct no-till seeding cereals or oilseeds; with anhydrous fertilizer
2	Lacomb	13.00	Tractor, Concorde air drill	Direct seeding cereals with granular fertilizer
2	Lacomb	16.00	Tractor, 24' Harman no-till seeder with 8" spacing with paired rows	Direct no-till seeding on hay stubble; with anhydrous fertilizer
2	MD7	5.00	FW Cessna A6 Wagon aircraft	Forages or canola; under 50 lbs.
2	MD44	5.00	Lor-al floater	Cereals
2	MD44	5.00	Valmar floater	Cereals; with granular fertilizer and herbicide
2	MD44	5.00	Lor-al floater	Cereals
2	MD44	7.00	Lor-al floater	Cereals or forages; with granular fertilizer
2	MD48	4.25	Lor-al floater	Forages or canola; with granular fertilizer
2	MD48	4.50	Lor-al floater	Cereals; with granular fertilizer
2	MD48	4.50	Tyler floater	Forages or canola
2	MD48	5.00	Terrigator floater	Cereals; with granular fertilizer

SP - self propelled PT - pull type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile cult - cultivator
fert - fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour

CROP SEEDING 1999



1	26	4.50	Lor-al floater	Forages; with granular fertilizer
1	26	4.50	Lor-al floater	Forages or canola
1	26	4.50	Lor-al floater	Forages or canola; with granular fertilizer
1	26	5.00	Terrigator floater	Forages or canola; with granular fertilizer
1	26	5.50	Lor-al floater	Forages or canola; with granular fertilizer
1	26	6.00	Tractor, Case-IH 7200 hoe drill	Cereals
1	26	8.00	Versatile 835 tractor, Bourgault 5710 35' air drill	Direct seeding cereals, oilseeds or pulses; with granular fertilizer
1	26	10.00	Tractor, Bourgault 5710 air drill	Direct seeding cereals; with granular fertilizer
2		10.00	Tractor, Conservapac zero-till air drill	Good neighbor rate; direct min-till seeding cereals; with granular and anhydrous fertilizer
2	Calgary	9.00-10.00	Tractor, 32' JD tandem air disc (modified)	Discing and seeding cereals or canola
2	Calgary	10.00	Tractor, Conservapac air drill	Direct no-till seeding cereals; with granular and anhydrous fertilizer
2	Calgary	10.00-12.00	Tractor, 32' JD tandem air disc (modified) with liquid fertilizer applicator	Discing and seeding cereals or canola; with liquid fertilizer
2	Calgary	115/hr	Tractor, 32' JD tandem air disc (modified)	Discing and seeding cereals or canola
2	Calgary	125/hr	Tractor, 32' JD tandem air disc (modified) with liquid fertilizer applicator	Discing and seeding cereals or canola; with liquid fertilizer

SP - self propelled PT - pull type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile cult - cultivator
fert- fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour



CROP SEEDING 1999

2	Lacombe	3.75	Lor-al floater	Forages: with granular fertilizer
2	Lacombe	4.00	Tyler floater	Forages or canola: with granular fertilizer
2	Lacombe	4.50	Tyler floater	Forages or canola: with granular fertilizer
2	Lacombe	12.00	Tractor, 32' Harman air drill 12" spacing, paired rows with cold flow kit	Direct no-till seeding cereals, oilseeds or pulses with anhydrous fertilizer
2	Lacombe	12.00-13.00	Tractor, 24' Harman no-till seeder with 8" spacing with paired rows	Direct no-till seeding cereals or oilseeds: with anhydrous fertilizer
2	Lacombe	13.00	Tractor, Concorde air drill	Direct seeding cereals with granular fertilizer
2	Lacombe	16.00	Tractor, 24' Harman no-till seeder with 8" spacing with paired rows	Direct no-till seeding on hay stubble: with anhydrous fertilizer
2	MD7	5.00	FW Cessna A6 Wagon aircraft	Forages or canola: under 50 lbs.
2	MD44	5.00	Lor-al floater	Cereals
2	MD44	5.00	Valmar floater	Cereals: with granular fertilizer and herbicide
2	MD44	5.00	Lor-al floater	Cereals
2	MD44	7.00	Lor-al floater	Cereals or forages: with granular fertilizer
2	MD48	4.25	Lor-al floater	Forages or canola: with granular fertilizer
2	MD48	4.50	Lor-al floater	Cereals: with granular fertilizer
2	MD48	4.50	Tyler floater	Forages or canola
2	MD48	5.00	Terrigator floater	Cereals: with granular fertilizer

SP - self propelled PT - pull type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile cult - cultivator
fert - fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour



CROP SEEDING 1999

2	MD48	10.00	Case-IH 9280 tractor, 47' Flexicoil cult with Flexicoil 2320 air seeder	With or without packers; direct seeding cereals or oilseeds
2	MD48	12.00	Tractor, Flexicoil 820 cult with Flexicoil 2320 air seeder	Direct seeding cereals or oilseeds; with granular fertilizer
2	SA4	8.50	Tractor, Bourgault air seeder	Cereals, oilseeds or forages; with or without granular fertilizer
2	3	4.00-5.00	PT Brillion 12' forage seeder	Forages; customer supplies tractor
2	3	4.25	Tyler floater	Cereals, oilseeds or forages
2	3	4.50	Tyler floater	Cereals, oilseeds or forages; with granular fertilizer
2	6	4.25	Lor-al floater	Forages or canola
2	6	4.50	Lor-al floater	Forages or canola; with granular fertilizer
2	6	8.00	32' Morris cultivator with Flexicoil air seeder	Cereals
2	17	4.00	Tyler floater	Forages or canola
2	17	4.00	Lor-al floater	Canola
2	17	4.00	Terrigator floater	Cereals or canola
2	17	4.25	Tyler floater	Forages or canola
2	17	4.50	Terrigator floater	Forages or canola

SP - self propelled PT - pull type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile cult - cultivator
fert- fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour

CROP SEEDING 1999



2	17	4.75	Tyler floater	Forages or canola; with granular fertilizer
2	17	4.75	Terrigator floater	Forages or canola; with granular fertilizer
2	17	5.00	Terrigator or Tyler floater	Cereals, oilseeds or forages
2	17	6.00	Terrigator floater	Canola; with granular fertilizer
2	17	6.00	Terrigator floater	Cereals, forages or canola; with granular fertilizer
2	17	6.00	Lor-al floater	Cereals or forages; with granular fertilizer
2	17	7.00	Terrigator floater	Cereals; with granular fertilizer
2	17	7.00	Tractor, JD 9350 30' seed drill	Cereals
2	17	12.00	Tractor, 14' 2H press drill	Direct seeding cereals or forages; with granular fertilizer
2	17	12.00	Tractor, Flexicoil 1620 31' air drill	Cereals; with granular fertilizer
2	18	7.50	Tractor, Flexicoil 40' air seeder	Cereals
2	18	8.50	Tractor, Flexicoil 40' air seeder	Cereals; with granular fertilizer
2	18	9.00	Tractor, Morris 35' air seeder	Peas
2	21	2.00	Tyler floater	Cereals or forages; with granular fertilizer
2	21	4.50	Tyler floater	Cereals, oilseeds or forages
2	23	4.50	Lor-al floater	Forages or canola; with granular fertilizer
2	23	4.50-5.00	Terrigator floater	Forages or canola; with granular fertilizer

SP - self propelled PT - pull type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile cult - cultivator
fert - fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour



CROP SEEDING 1999

Reactor quantity custom cost (\$/ac) type of applicator notes

2	MD48	10.00	Case-IH 9280 tractor, 47" Flexicoil cult with Flexicoil 2320 air seeder	With or without packers; direct seeding cereals or oilseeds
2	MD48	12.00	Tractor, Flexicoil 820 cult with Flexicoil 2320 air seeder	Direct seeding cereals or oilseeds; with granular fertilizer
2	SA4	8.50	Tractor, Bourgault air seeder	Cereals, oilseeds or forages; with or without granular fertilizer
2	3	4.00-5.00	PT Brillion 12' forage seeder	Forages; customer supplies tractor
2	3	4.25	Tyler floater	Cereals, oilseeds or forages
2	3	4.50	Tyler floater	Cereals, oilseeds or forages; with granular fertilizer
2	6	4.25	Lor-al floater	Forages or canola
2	6	4.50	Lor-al floater	Forages or canola; with granular fertilizer
2	6	8.00	32' Morris cultivator with Flexicoil air seeder	Cereals
2	17	4.00	Tyler floater	Forages or canola
2	17	4.00	Lor-al floater	Canola
2	17	4.00	Terrigator floater	Cereals or canola
2	17	4.25	Tyler floater	Forages or canola
2	17	4.50	Terrigator floater	Forages or canola

SP - self propelled PT - pull type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile cult - cultivator
fert- fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour



CROP SEEDING 1999

Region	County	Custom Cost (\$/ac)	Type of Applicator	Notes
2	17	4.75	Tyler floater	Forages or canola; with granular fertilizer
2	17	4.75	Terrigator floater	Forages or canola; with granular fertilizer
2	17	5.00	Terrigator or Tyler floater	Cereals, oilseeds or forages
2	17	6.00	Terrigator floater	Canola; with granular fertilizer
2	17	6.00	Terrigator floater	Cereals, forages or canola; with granular fertilizer
2	17	6.00	Lor-al floater	Cereals or forages; with granular fertilizer
2	17	7.00	Terrigator floater	Cereals; with granular fertilizer
2	17	7.00	Tractor, JD 9350 30' seed drill	Cereals
2	17	12.00	Tractor, 14' IH press drill	Direct seeding cereals or forages; with granular fertilizer
2	17	12.00	Tractor, Flexicoil 1620 31' air drill	Cereals; with granular fertilizer
2	18	7.50	Tractor, Flexicoil 40' air seeder	Cereals
2	18	8.50	Tractor, Flexicoil 40' air seeder	Cereals; with granular fertilizer
2	18	9.00	Tractor, Morris 35' air seeder	Peas
2	23	4.00	Tyler floater	Cereals or forages; with granular fertilizer
2	23	4.50	Tyler floater	Cereals, oilseeds or forages
2	23	4.50	Lor-al floater	Forages or canola; with granular fertilizer
2	23	4.50-5.00	Terrigator floater	Forages or canola; with granular fertilizer

SP - self propelled PT - pull type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile cult - cultivator
fert- fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour

CROP SEEDING 1999



2	23	4.75	Terrigator floater	Forages or oilseeds; with granular fertilizer
2	23	4.95	Lor-al floater	Forages or canola; with granular fertilizer
2	23	5.00	Lor-al or Terrigator floater	Forages or canola; with granular fertilizer
2	23	5.00	Tifton 4375 floater	Forages or canola; with granular fertilizer
2	23	6.00	Tyler floaters	Cereals; canola or forages; with granular fertilizer
2	23	8.00	Tractor, Bourgault air seeder	Cereals or oilseeds
2	23	8.00	Tractor, Willich 27" air seeder with mounted harrows only	Cereals; with or without granular fertilizer
2	23	10.00	Tractor, 40" Concorde air seeder	Cereals with granular fertilizer
2	23	13.00	Tractor, 32" Harmon air drill 12" spacing; paired rows with cold FW kit	Direct min-till seeding; cereals, oilseeds or pulses; with granular and anhydrous fertilizer
3	MD52	4.25	Lor-al or Terrigator floater	Canola; with granular fertilizer
3	MD61	7.50	Tractor, JD 655 air seeder	Cereals or pulses; with granular fertilizer
3	9	4.50	Terrigator floater	Canola
3	9	15.00	Tractor, Flexicoil air drill with on row packers	Direct min-till seeding cereals or oilseeds; with granular fertilizer
3	9	15.00	Cat Challenger 65C 280hp; Great Plains NT3010 no-till disc drill with (L) fertilizer	Including consultation in long-term conservation tillage; under 150 acres

SP - self propelled PT - pull type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile cult - cultivator
fert - fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour



CROP SEEDING 1999

3	19	3.99	Terrigator floater	Cereals, oilseeds or forages
3	19	4.00	Mertz floater	Cereals, oilseeds or forages
3	19	4.24	Terrigator floater	Forages or canola; with granular fertilizer
3	19	13.00	Tractor, JD 590 hoe drill	Direct seeding cereals; with granular fertilizer
3	21	8.50	Tractor, Bourgault 5710 air drill	Direct seeding cereals or oilseeds; with granular fertilizer
3	22	Rental \$1.00/ac	PT Valmar spreader	Rental for seeding forages
3	22	4.00	Lor-al floater	Forages or oilseeds
3	22	4.50	Lor-al floater	Forages or oilseeds; with granular fertilizer
3	22	4.50	Terrigator floater	Forages or oilseeds
3	22	4.50	Lor-al floater	Forages or oilseeds; with granular fertilizer
3	22	4.75	Terrigator floater	Canola; with granular fertilizer
3	22	5.00	Terrigator floater	Forages or oilseeds; with granular fertilizer
3	22	5.50-6.00	Tractor, double disc press drill	Cereals
3	22	6.00	Tractor, double disc press drill	Cereals; with granular fertilizer
3	22	6.00	Terrigator floater	Cereals; with granular fertilizer
3	22	16.00	Tractor, Flexicoil 5000 air drill	Direct seeding cereals or oilseeds; with granular and anhydrous fertilizer

SP - self propelled PT - pull type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile cult - cultivator
fert - fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour



CROP SEEDING 1999

Region	County	Custom Cost (\$/ac)	Type of Applicator	Notes
2	23	4.75	Terrigator floater	Forages or oilseeds; with granular fertilizer
2	23	4.95	Lor-al floater	Forages or canola; with granular fertilizer
2	23	5.00	Lor-al or Terrigator floater	Forages or canola; with granular fertilizer
2	23	5.00	Titon 4375 floater	Forages or canola; with granular fertilizer
2	23	6.00	Tyler floater	Cereals, canola or forages; with granular fertilizer
2	23	8.00	Tractor, Bourgault air seeder	Cereals or oilseeds
2	23	8.00	Tractor, Wilrich 27' air seeder with mounted harrows only	Cereals; with or without granular fertilizer
2	23	10.00	Tractor, 40' Concorde air seeder	Cereals; with granular fertilizer
2	23	13.00	Tractor, 32' Harmon air drill 12" spacing; paired rows with cold flow kit	Direct no-till seeding cereals, oilseeds or pulses; with granular and anhydrous fertilizer
3	MD52	4.25	Lor-al or Terrigator floater	Canola; with granular fertilizer
3	MD61	7.50	Tractor, JD 655 air seeder	Cereals or pulses; with granular fertilizer
3	9	4.50	Terrigator floater	Canola
3	9	15.00	Tractor, Flexicoil air drill with on row packers	Direct min-till seeding cereals or oilseeds; with granular fertilizer
3	9	15.00	Cat Challenger 65C 280hp; Great Plains NT3010 no-till disc drill with (L) fertilizer	Including consultation in long-term conservation tillage; under 150 acres

SP - self propelled PT - pull type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile cult - cultivator
fert- fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour

CROP SEEDING 1999



Region		County	Custom cost (\$/ac)	Type of Application	Notes
3	19		3.99	Terrigator floater	Cereals, oilseeds or forages
3	19		4.00	Mertz floater	Cereals, oilseeds or forages
3	19		4.24	Terrigator floater	Forages or canola; with granular fertilizer
3	19		13.00	Tractor, JD 590 hoe drill	Direct seeding cereals; with granular fertilizer
3	21		8.50	Tractor, Bourgault 5710 air drill	Direct seeding cereals or oilseeds; with granular fertilizer
3	22		Rental \$1.00/ac	PT Valmar spreader	Rental for seeding forages
3	22		4.00	Lor-al floater	Forages or oilseeds
3	22		4.50	Lor-al floater	Forages or oilseeds; with granular fertilizer
3	22		4.50	Terrigator floater	Forages or oilseeds
3	22		4.50	Lor-al floater	Forages or oilseeds; with granular fertilizer
3	22		4.75	Terrigator floater	Canola; with granular fertilizer
3	22		5.00	Terrigator floater	Forages or oilseeds; with granular fertilizer
3	22		5.50-6.00	Tractor, double disc press drill	Cereals
3	22		6.00	Tractor, double disc press drill	Cereals; with granular fertilizer
3	22		6.00	Terrigator floater	Cereals; with granular fertilizer
3	22		16.00	Tractor, Flexicoil 5000 air drill	Direct seeding cereals or oilseeds; with granular and anhydrous fertilizer

SP - self propelled PT - pull type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile cult - cultivator
fert - fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour

CROP SEEDING 1999



Model
Capacity
Price (G) per
acre (A) per
hour

3	24	5.00	FW Thrush or Cessna 188B	Forages or canola
3	24	5.00	Lor-al floater	Forages or canola; with granular fertilizer
3	24	5.00	FW Grumann AG Cat or Thrush	Forages or canola
3	24	8.00	Tractor, Flexicoil air seeder	Seeding all crops; with granular fertilizer
3	24	9.00	Tractor, Flexicoil 820 air seeder	Seeding cereals with fertilizer; plus \$3/ac for harrow/packing in separate operation
3	24	15.00	Tractor, Flexicoil air drill with on row packers	Direct min-till seeding cereals; with granular fertilizer
3	27	9.00-14.00	Seed Hawk zero-till triple shute air hoe drill	Direct no-till seeding with fert (G) & (A); price depends on distance & acreage
3	29	5.00	FW Weatherly 620B aircraft	Oilseeds
3	29	5.00	FW Weatherly 620B aircraft	Forages; with granular fertilizer
3	29	10.00	Tractor, 56' Flexicoil air drill	Cereals
3	29	10.00	Tractor, Concorde air drill with spikes	Seeding any crop in pre-worked field
3	29	12.00	Tractor, Flexicoil 820 air seeder with packers	Cereals, canola with granular fertilizer and packing
3	29	12.00	Tractor, Flexicoil air drill	Seeding all crops with granular fertilizer
3	29	12.00-13.00	Tractor, no-till seeder applies fert (G) with broadcast seed & anhydrous fert below seed on stubble	
3	29	12.00-14.00	Tractor, 56' Flexicoil air drill	Direct seeding cereals; with granular fertilizer

SP - self propelled PT - pull type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile cult - cultivator
fert - fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour



CROP SEEDING 1999

Region County County Cost (\$/ac) Type of Applicator

Notes

3	29	12.50	Tractor, Flexicoil air seeder	Direct seeding cereals or oilseeds; with granular fertilizer
3	29	13.00-14.00	Tractor, Concorde air drill with Concorde 340bu air seeder & stealth knives 10" spacing & paired rows	With fertilizer banding unit
3	29	14.00	Tractor, 47' Concorde air drill with 10" spacing and paired rows with fertilizer banding unit	For direct no-till seeding with granular fertilizer
3	29	14.00	Tractor, Concorde air drill with Concorde tank	Direct seeding cereals or oilseeds; with granular fertilizer
3	29	14.00-15.00	Tractor, Concorde air drill with Concorde air seeder using Flexicoil stealth knives 10" spacing and paired rows	With fertilizer banding unit
3	30	7.00	Tractor, Cultivator with JD air seeder	Cereals, oilseeds or pulses
3	30	14.00	Tractor, Morris air seeder	Direct min-till seeding cereals or oilseeds; with granular fertilizer
4	MD77	3.50	Terrigator floater	Forages or canola; with granular fertilizer
4	MD90	4.00	TM Willmar spin spreader	Forages or canola; with granular fertilizer
4	MD90	4.50	Terrigator floater	Forages or canola; with granular fertilizer
4	MD90	4.50	Terrigator floater	Forages or canola; with granular fertilizer
4	MD92	4.25	Terrigator floater	Forages or canola; with granular fertilizer
4	MD92	4.50	FW Cessna Ag Truck or Pawnee Brave	Forages or canola; with granular fertilizer
4	MD92	4.95	Terrigator floater	Forages or canola; with granular fertilizer
4	MD92	12.00	Tractor, Bourgault air seeder with Phoenix toe packers	Direct min-till seeding all crops; with granular fertilizer and herbicide

SP - self propelled PT - pull type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile cult - cultivator
fert - fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour

CROP SEEDING 1999



3	24	5.00	FW Thrush or Cessna 188B	Forages or canola
3	24	5.00	Lor-al floater	Forages or canola; with granular fertilizer
3	24	5.00	FW Grumann AG Cat or Thrush	Forages or canola
3	24	8.00	Tractor, Flexicoil air seeder	Seeding all crops; with granular fertilizer
3	24	9.00	Tractor, Flexicoil 820 air seeder	Seeding cereals with fertilizer; plus \$3/ac for harrow/packing in separate operation
3	24	15.00	Tractor, Flexicoil air drill with on row packers	Direct min-till seeding cereals; with granular fertilizer
3	27	9.00-14.00	Seed Hawk zero-till triple shute air hoe drill	Direct no-till seeding with fert (G) & (A); price depends on distance & acreage
3	29	5.00	FW Weatherly 620B aircraft	Oilseeds
3	29	5.00	FW Weatherly 620B aircraft	Forages; with granular fertilizer
3	29	10.00	Tractor, 56' Flexicoil air drill	Cereals
3	29	10.00	Tractor, Concorde air drill with spikes	Seeding any crop in pre-worked field
3	29	12.00	Tractor, Flexicoil 820 air seeder with packers	Cereals, canola with granular fertilizer and packing
3	29	12.00	Tractor, Flexicoil air drill	Seeding all crops with granular fertilizer
3	29	12.00-13.00	Tractor, no-till seeder applies fert (G) with broadcast seed & anhydrous fert below seed on stubble	
3	29	12.00-14.00	Tractor, 56' Flexicoil air drill	Direct seeding cereals; with granular fertilizer

SP - self propelled PT - pull type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile cult - cultivator
fert - fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour



CROP SEEDING 1999

3	29	12.50	Tractor, Flexicoil air seeder	Direct seeding cereals or oilseeds; with granular fertilizer
3	29	13.00-14.00	Tractor, Concorde air drill with Concorde 340bu air seeder & stealth knives 10" spacing & paired rows	With fertilizer banding unit
3	29	14.00	Tractor, 47' Concorde air drill with 10" spacing and paired rows with fertilizer banding unit	For direct no-till seeding with granular fertilizer
3	29	14.00	Tractor, Concorde air drill with Concorde tank	Direct seeding cereals or oilseeds; with granular fertilizer
3	29	14.00-15.00	Tractor, Concorde air drill with Concorde air seeder using Flexicoil stealth knives 10" spacing and paired rows	With fertilizer banding unit
3	30	7.00	Tractor, Cultivator with JD air seeder	Cereals, oilseeds or pulses
3	30	14.00	Tractor, Morris air seeder	Direct min-till seeding cereals or oilseeds; with granular fertilizer
4	MD77	3.50	Terrigator floater	Forages or canola; with granular fertilizer
4	MD90	4.00	TM Willmar spin spreader	Forages or canola; with granular fertilizer
4	MD90	4.50	Terrigator floater	Forages or canola; with granular fertilizer
4	MD90	4.50	Terrigator floater	Forages or canola; with granular fertilizer
4	MD92	4.25	Terrigator floater	Forages or canola; with granular fertilizer
4	MD92	4.50	FW Cessna Ag Truck or Pawnee Brave	Forages or canola; with granular fertilizer
4	MD92	4.95	Terrigator floater	Forages or canola; with granular fertilizer
4	MD92	12.00	Tractor, Bourgault air seeder with Phoenix toe packers	Direct min-till seeding all crops; with granular fertilizer and herbicide

SP - self propelled PT - pull type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile cult - cultivator
fert - fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour

CROP SEEDING 1999



4	Parkland	3.50	Terrigator floater	Forages or canola; with granular fertilizer
4	Parkland	5.00	FW Piper Pioneer or Piper Brave	Forages or canola
4	Parkland	5.00	Terrigator floater	Forages or canola; with granular fertilizer
4	Parkland	50.00/hr	Tractor, 3 IH seed drill tandemed to 21' with packer wheels	Direct seeding cereals; with granular fertilizer
4	Strathcona	4.50	Valmar air spreader floater	Forages or canola; with granular fertilizer
4	Strathcona	7.50	Tractor, 39' Flexcoil air drill	Seeding cereals; with granular fertilizer
4	Strathcona	8.50	275hp tractor, 36' Bourgault air seeder	Seeding all crops; with granular fertilizer
4	Strathcona	10.00	Tractor, 48' Concorde air seeder	Direct seeding cereals or canola; with granular fertilizer
4	Strathcona	11.50	Tractor, 24' Concorde air seeder with cold flow kit	Direct seeding cereals, canola; with granular & anhydrous fertilizer
4	Strathcona	12.00	Tractor, Concorde air drill	Direct seeding cereals or canola; with granular fertilizer
4	Strathcona	12.00	Tractor, Concorde air drill	Direct seeding cereals; with granular fertilizer
4	7	4.50	Valmar air spreader floater	Forages or canola; with granular fertilizer
4	10	4.50	Terrigator floater	Cereals; with granular fertilizer
4	10	5.00	FW Air Tractor aircraft	Forages or oilseeds; plus \$0.01-0.02/lb applied per acre
4	10	9.50	Tractor, Concorde air seeder	Direct seeding cereals or oilseeds; with granular fertilizer

SP - self propelled PT - pull type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile cult - cultivator
fert- fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour



CROP SEEDING 1999

4	10	10.00	Tractor, Concorde 33' air seeder with double shute	Seeding with granular fertilizer on worked land
4	10	10.00	Tractor, Concorde air seeder	Cereals or oilseeds; with granular fertilizer
4	10	10.00	Tractor, Flexicoil air seeder	Direct seeding cereals; with granular fertilizer
4	10	12.00	Tractor, 32' Concorde air drill	Direct min-till seeding cereals or oilseeds; with granular fertilizer
4	10	12.00	Tractor, 32' Concorde air drill with paired rows	Direct min-till seeding; with granular fertilizer
4	10	12.00	Tractor, Concorde 33' air seeder with double shute	Direct seeding with granular fertilizer
4	10	16.00	Tractor, Concorde 33' air seeder with double shute	Direct seeding with granular and anhydrous fertilizer
4	11	3.00	TM Valmar	Forages or canola
4	11	4.25	Terrigator floater	Forages or canola; with granular fertilizer
4	11	4.50	Terrigator floater	Forages or canola; with granular fertilizer
4	11	4.75	Terrigator floater	Forages or canola; with granular fertilizer
4	11	4.95	Terrigator floater	Cereals; with granular fertilizer
4	11	4.95	Terrigator floater	Cereals; with granular fertilizer
4	11	10.00	Tractor, 27' Flexicoil cult with Flexicoil 1110 air seeder	Direct seeding cereals or oilseeds
4	11	11.00	Tractor, Flexicoil cult with Flexicoil 1100 air seeder	Direct seeding cereals or oilseeds
4	11	11.00	Tractor, 27' Flexicoil cult with Flexicoil 1110 air seeder	Direct seeding cereals or oilseeds; with granular fertilizer

SP - self propelled PT - pull type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile cult - cultivator
fert - fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour

CROP SEEDING 1999



Region County Custom Seed (\$/acre) Type of Application

Notes

4	Parkland	3.50	Terrigator floater	Forages or canola: with granular fertilizer
4	Parkland	5.00	FW Piper Pownee or Piper Brave	Forages or canola
4	Parkland	5.00	Terrigator floater	Forages or canola: with granular fertilizer
4	Parkland	50.00/hr	Tractor, 3 IH seed drill tandemed to 21' with packer wheels	Direct seeding cereals: with granular fertilizer
4	Strathcona	4.50	Valmar air spreader floater	Forages or canola: with granular fertilizer
4	Strathcona	7.50	Tractor, 39' Flexicoil air drill	Seeding cereals: with granular fertilizer
4	Strathcona	8.50	275hp tractor, 36' Bourgault air seeder	Seeding all crops: with granular fertilizer
4	Strathcona	10.00	Tractor, 48' Concorde air seeder	Direct seeding cereals or canola: with granular fertilizer
4	Strathcona	11.50	Tractor, 24' Concorde air seeder with cold flow kit	Direct seeding cereals, canola: with granular & anhydrous fertilizer
4	Strathcona	12.00	Tractor, Concorde air drill	Direct seeding cereals or canola: with granular fertilizer
4	Strathcona	12.00	Tractor, Concorde air drill	Direct seeding cereals: with granular fertilizer
4	7	4.50	Valmar air spreader floater	Forages or canola: with granular fertilizer
4	10	4.50	Terrigator floater	Cereals: with granular fertilizer
4	10	5.00	FW Air Tractor aircraft	Forages or oilseeds; plus \$0.01-0.02/lb applied per acre
4	10	9.50	Tractor, Concorde air seeder	Direct seeding cereals or oilseeds: with granular fertilizer

SP - self propelled PT - pull type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile cult - cultivator
fert- fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour



CROP SEEDING 1999

Region	County	Custom Cost (\$/ac)	Type of Applicator	Notes
4	10	10.00	Tractor, Concorde 33' air seeder with double shute	Seeding with granular fertilizer on worked land
4	10	10.00	Tractor, Concorde air seeder	Cereals or oilseeds; with granular fertilizer
4	10	10.00	Tractor, Flexicoil air seeder	Direct seeding cereals; with granular fertilizer
4	10	12.00	Tractor, 32' Concorde air drill	Direct min-till seeding cereals or oilseeds; with granular fertilizer
4	10	12.00	Tractor, 32' Concorde air drill with paired rows	Direct min-till seeding; with granular fertilizer
4	10	12.00	Tractor, Concorde 33' air seeder with double shute	Direct seeding with granular fertilizer
4	10	16.00	Tractor, Concorde 33' air seeder with double shute	Direct seeding with granular and anhydrous fertilizer
4	11	3.00	TM Valmar	Forages or canola
4	11	4.25	Terrigator floater	Forages or canola; with granular fertilizer
4	11	4.50	Terrigator floater	Forages or canola; with granular fertilizer
4	11	4.75	Terrigator floater	Forages or canola; with granular fertilizer
4	11	4.95	Terrigator floater	Cereals; with granular fertilizer
4	11	4.95	Terrigator floater	Cereals; with granular fertilizer
4	11	10.00	Tractor, 27' Flexicoil cult with Flexicoil 1110 air seeder	Direct seeding cereals or oilseeds
4	11	11.00	Tractor, Flexicoil cult with Flexicoil 1100 air seeder	Direct seeding cereals or oilseeds
4	11	11.00	Tractor, 27' Flexicoil cult with Flexicoil 1110 air seeder	Direct seeding cereals or oilseeds; with granular fertilizer

SP - self propelled PT - pull type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile cult - cultivator
fert- fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour

CROP SEEDING 1999



Region county custom cost (\$/ac) type of applicator

Notes

4	11	12.00	Tractor, Flexicoil cult with Flexicoil 1100 air seeder	Direct seeding cereals or oilseeds; with granular fertilizer
4	11	13.00	Tractor, Flexicoil cult with Flexicoil 1100 air seeder	Direct seeding cereals or oilseeds; with granular fertilizer and forages
4	11	13.00	Tractor, Flexicoil cult with Flexicoil 1100 air seeder	Direct seeding cereals or oilseeds; with granular fertilizer and avadex
4	12	10.00	Tractor, Concorde air drill	Direct seeding
4	12	10.00	Tractor, Concorde 40' air drill	Cereals, oilseeds or forages; with granular fertilizer
4	12	12.00	Tractor, Concorde air drill	Direct seeding with granular fertilizer
4	12	14.00	Tractor, Seed Hawk air drill	Direct no-till seeding cereals or oilseeds; with granular fertilizer
4	25	5.00	Terrigator floater	Forages or canola; with granular fertilizer
4	25	6.00	Tractor, Morris 30' cultivator with hoe drill	Seeding all crops; with granular fertilizer
4	25	6.00-7.00	Tractor, Brillion forage seeder	Larger acreages
4	25	7.50-8.00	Tractor, Brillion forage seeder	Smaller acreages
4	25	9.00	Tractor, Flexicoil air seeder	Direct seeding all crops; with granular fertilizer
4	25	10.00	Tractor, Flexicoil air seeder	Direct seeding cereals or oilseeds
5	MD16	5.00	FW Cessna 188 or Air Tractor 401 aircraft	Forages or canola

SP - self propelled PT - pull type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile cult - cultivator
fert - fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour

CROP SEEDING 1999



Region	County	Custom Cost (\$/ac)	Type of Applicator	Notes
5	MD19	6.50	Tractor, JD 9350 30' hoe drill	Cereals or canola; with granular fertilizer
5	MD19	7.00	Tractor, JD 9350 30' hoe drill	Cereals or oilseeds
5	MD130	4.00-4.50	Lor-al floater	Canola
5	MD131	4.50	Lor-al floater	Forages or canola; with granular fertilizer
5	MD133	4.00	Lor-al floater	Forages or canola; with granular fertilizer
5	MD133	4.00	Lor-al floater	Forages or canola
5	MD133	7.50	Tractor, Bourgault 42' air seeder with harrows	Seeding forages; with granular fertilizer
5	MD133	90.00/hr	Tractor, Bourgault 42' air seeder with harrows	Seeding forages; with granular fertilizer
5	MD135	8.00	Tractor, Concorde air drill	Seeding cereals; with granular fertilizer
5	MD136	15.00	Tractor, 40' JD 737 cult with double shoor air drill 230bu tank with on row packing	Direct seeding with fertilizer; includes tandem truck for hauling
5	I	4.00	Lor-al floater	Forages or canola; with granular fertilizer

SP - self propelled PT - pull type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile cult - cultivator
fert- fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour

CROP SEEDING 1999



4	11	12.00	Tractor, Flexicoil cult with Flexicoil 1100 air seeder	Direct seeding cereals or oilseeds; with granular fertilizer
4	11	13.00	Tractor, Flexicoil cult with Flexicoil 1100 air seeder	Direct seeding cereals or oilseeds; with granular fertilizer and forages
4	11	13.00	Tractor, Flexicoil cult with Flexicoil 1100 air seeder	Direct seeding cereals or oilseeds; with granular fertilizer and avadex
4	12	10.00	Tractor, Concorde air drill	Direct seeding
4	12	10.00	Tractor, Concorde 40' air drill	Cereals, oilseeds or forages; with granular fertilizer
4	12	12.00	Tractor, Concorde air drill	Direct seeding with granular fertilizer
4	12	14.00	Tractor, Seed Hawk air drill	Direct no-till seeding cereals or oilseeds; with granular fertilizer
4	25	5.00	Terrigator floater	Forages or canola; with granular fertilizer
4	25	6.00	Tractor, Morris 30' cultivator with hoe drill	Seeding all crops; with granular fertilizer
4	25	6.00-7.00	Tractor, Brillion forage seeder	Larger acreages
4	25	7.50-8.00	Tractor, Brillion forage seeder	Smaller acreages
4	25	9.00	Tractor, Flexicoil air seeder	Direct seeding all crops; with granular fertilizer
4	25	10.00	Tractor, Flexicoil air seeder	Direct seeding cereals or oilseeds
5	MD16	5.00	FW Cessna 188 or Air Tractor 401 aircraft	Forages or canola

SP - self propelled PT - pull type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile cult - cultivator
fert- fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour



CROP SEEDING 1999

Model Capacity Fuel Time Fuel Time Fuel Time

5	MD19	6.50	Tractor, JD 9350 30' hoe drill	Cereals or canola; with granular fertilizer
5	MD19	7.00	Tractor, JD 9350 30' hoe drill	Cereals or oilseeds
5	MD130	4.00-4.50	Lor-al floater	Canola
5	MD131	4.50	Lor-al floater	Forages or canola; with granular fertilizer
5	MD133	4.00	Lor-al floater	Forages or canola; with granular fertilizer
5	MD133	4.00	Lor-al floater	Forages or canola
5	MD133	7.50	Tractor, Bourgault 42' air seeder with harrows	Seeding forages; with granular fertilizer
5	MD133	90.00/hr	Tractor, Bourgault 42' air seeder with harrows	Seeding forages; with granular fertilizer
5	MD135	8.00	Tractor, Concorde air drill	Seeding cereals; with granular fertilizer
5	MD136	15.00	Tractor, 40' JD 737 cult with double shoot air drill 230bu tank with on row packing	Direct seeding with fertilizer; includes tandem truck for hauling
5	1	4.00	Lor-al floater	Forages or canola; with granular fertilizer

SP - self propelled PT - pull type TM - truck mount FW - fixed wing JD - John Deere Vers - Versatile cult - cultivator
fert - fertilizer herb - herbicide G - granular L - liquid A - anhydrous ac - acre hr - hour

FERTILIZER APPLICATION 1999



	I	MDI	3.75	G	Willmar or Lor-al floater		\$10/tonne	With purchase of product
	1	MD6		G	PT Mobility spin spreader			
	1	MD6	3.50	G	SP Willmar spin spreader			Single application
	1	MD6	3.75	G	Lor-al floater			
	1	MD6	4.00	G	Lor-al floater			Single application
	1	MD14		G	PT Willmar spin spreader	\$1/ac		With purchase of product
	1	MD14		G	PT Willmar spin spreader	\$n/c		With purchase of product
	1	MD14		L	PT Bandwagon	\$1/ac		With purchase of product
	1	MD14	4.00	G	Ag-chem Terrigator floater			
	1	MD14	4.00	G	Lor-al floater			Single application
	1	MD14	4.00	G	Lor-al floater			
	1	MD14	4.25	G	Tyler air flow floater			Single application
	1	MD14	4.50	G	Lor-al floater			Single application
	1	MD14	4.50	G	Lor-al floater			
	1	MD14	4.50	G	Lor-al floater			Dual applications with herbicide
	1	MD14	4.75	G	Lor-al floater			Dual applications with herbicide

L - Liquid G - Granular A - Anhydrous SP - self-propelled PT - pull-type TM - Truck mounted FW - fixed wing aircraft
JD - John Deere Vers - Versatile ac acre hr - hour n/c - no charge



FERTILIZER APPLICATION 1999

Notes

12/31/99
2000

Application Method
Application Rate
Application Time

1	MD26	6	PT Willmar spin spreader	\$n/c	With purchase of product
1	MD26	6	PT Willmar spin spreader	\$n/c	With purchase of product
1	MD26	L	PT Bandwagon	\$1.50/ac	With purchase of product
1	MD26	6	Willmar spin spreader floater		
1	MD26	6	Tyler air flow floater		
1	MD26	6	Ag-chem Terrigator floater		Single application
1	MD26	6	Willmar spin spreader floater		
1	MD26	6	Ag-chem Terrigator floater		Single application
1	MD26	6	Tractor, Morris air seeder		Deep banding
1	MD31	A	PT anhydrous applicator	\$4/ac	With purchase of product
1	MD31	6	Lor-el floater		
1	MD31	6	Lor-el floater		
1	MD31	6	Lor-el floater		Single application or with herbicide
1	MD31	6	Lor-el floater		Single application
1	MD31	6	Lor-el floater		Single application
1	MD31	6	Lor-el floater		
1	MD31	A	JD 1610 air seeder with 2" spikes and harrows		Deep banding anhydrous fertilizer
1	MD31	A	Tractor, cultivator with cold flow kit		

L - Liquid 6 - Granular A - Anhydrous SP - self-propelled PT - pull-type TM - Truck mounted FW - fixed wing aircraft
JD - John Deere Vers - Versatile ac - acre hr - hour n/c - no charge

FERTILIZER APPLICATION 1999



Rental
cost

Notes

Form of
Product

Type of Applicator

Custom
\$/ac

Quantity

1	MD1	3.75	6	Willmar or Lor-al floater		
1	MD6		6	PT Mobility spin spreader	\$10/tonne	With purchase of product
1	MD6	3.50	6	SP Willmar spin spreader		Single application
1	MD6	3.75	6	Lor-al floater		
1	MD6	4.00	6	Lor-al floater		Single application
1	MD14		6	PT Willmar spin spreader	\$1/ac	With purchase of product
1	MD14		6	PT Willmar spin spreader	\$n/c	With purchase of product
1	MD14		L	PT Bandwagon	\$1/ac	With purchase of product
1	MD14	4.00	6	Ag-chem Terrigator floater		
1	MD14	4.00	6	Lor-al floater		Single application
1	MD14	4.00	6	Lor-al floater		
1	MD14	4.25	6	Tyler air flow floater		Single application
1	MD14	4.50	6	Lor-al floater		Single application
1	MD14	4.50	6	Lor-al floater		
1	MD14	4.50	6	Lor-al floater		
1	MD14	4.50	6	Lor-al floater		Dual application; with herbicide
1	MD14	4.75	6	Lor-al floater		Dual application; with herbicide

L - Liquid 6 - Granular A - Anhydrous SP - self-propelled PT - pull-type TM - Truck mounted FW - fixed wing aircraft
JD - John Deere Vers - Versatile ac - acre hr - hour n/c - no charge

FERTILIZER APPLICATION 1999



Region	County	Custom Cost (\$/ac)	Form of Product	Type of Applicator	Rental Cost	Notes
1	MD26		G	PT Willmar spin spreader	\$n/c	With purchase of product
1	MD26		G	PT Willmar spin spreader	\$n/c	With purchase of product
1	MD26		L	PT Bandwagon	\$1.50/ac	With purchase of product
1	MD26	3.25	G	Willmar spin spreader floater		
1	MD26	3.75	G	Tyler air flow floater		
1	MD26	4.00	G	Ag-chem Terrigator floater		Single application
1	MD26	4.00	G	Willmar spin spreader floater		
1	MD26	4.00	G	Ag-chem Terrigator floater		Single application
1	MD26	10.00	G	Tractor, Morris air seeder		Deep banding
1	MD31		A	PT anhydrous applicator	\$4/ac	With purchase of product
1	MD31	3.50	G	Lar-al floater		
1	MD31	3.75	G	Lar-al floater		Single application or with herbicide
1	MD31	4.00	G	Lar-al floater		Single application
1	MD31	4.00	G	Lar-al floater		Single application
1	MD31	4.50	G	Lar-al floater		Deep banding anhydrous fertilizer
1	MD31	6.00	A	JD 1610 air seeder with 2" spikes and harrows		
1	MD31	7.00	A	Tractor, cultivator with cold flow kit		

L - Liquid G - Granular A - Anhydrous SP - self-propelled PT - pull-type TM - Truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile ac - acre hr - hour n/c - no charge

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REPRODUCTIVE QUALITY**

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REPRODUCED ON THE FICHE IN ORDER TO OBTAIN
A COMPLETE READING OF THE TEXT.**

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DOUBLE AFIN D'AMÉLIORER LA QUALITÉ DE
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LES PAGES REPRODUITES SUR LA FICHE AFIN
D'OBTENIR LA LECTURE DU TEXTE INTÉGRAL**

FERTILIZER APPLICATION 1999



1	MD31	3.50	6	Lor-al floater	Dual application with herbicide
1	MD31	4.50	6	Lor-al floater	Dual application with herbicide
1	2		L	PT liquid bandwagon	\$1.50/ac
1	2		L	PT co-fitter with tank	\$3.50/ac
1	2		6	PT Willmar spin spreader	With purchase of product
1	2		6	PT Willmar spin spreader	With purchase of product
1	2	4.00	L	AG-Chem Rogator hi-clearance sprayer	
1	2	4.00	6	Lor-al floater	
1	2	4.25	6	Lor-al floater	Single application
1	2	6.00	6	Tractor, JD 1810 air seeder	Deep banding
1	2	4.50	6	Lor-al floater	Dual application with herbicide
1	4		6	PT Willmar spin spreader	With purchase of product
1	4		6	PT Willmar spin spreader	With purchase of product
1	4		6	PT Willmar or Simonsen spin spreader	With purchase of product
1	4		L	PT Bandwagon	With purchase of product
1	4		L	PT Bandwagon with dribbler	With purchase of product

L - Liquid G - Granular A - Anhydrous SP - self-propelled PT - pull-type TM - Truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile ac - acre hr - hour N/c - no charge

FERTILIZER APPLICATION 1999



1	4	4.50	6	Lor-al floater	Single application
1	4	4.50	6	Lor-al floater	
1	4	4.50	6	Ag-chem Terrigator floater	Aerial application
1	4	5.00	6	FW Thrush aircraft	Within 5 miles; under 200 lbs.
1	4	5.00	6	FW Air Tractor aircraft	Deep banding fertilizer
1	4	6.25	6	JD 8630 4wd tractor, JD air seeder	
1	4		6	PT Valmar	Dual application; with herbicide
1	4	4.50	6	Ag-chem Terrigator floater	Dual application; with herbicide
1	4	4.50	6	Lor-al floater	Dual application; with herbicide
1	5		6	PT Willmar spin spreader	With purchase of product
1	5		6	PT Willmar spin spreader	With purchase of product
1	5	4.00	6	Willmar floater	Large acreage
1	5	4.50	6	Willmar floater	Large acreage; with herbicide
1	8		A	Cultivator with cold flow kit	
1	8	3.75	6	Willmar or Lor-al floater	
1	8	4.00	6	TM Willmar spreader	Single application
1	8	4.50	6	Lor-al floater	Single application

L - Liquid G - Granular A - Anhydrous SP - self-propelled PT - pull-type TM - Truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile ac - acre hr - hour N/C - no charge



FERTILIZER APPLICATION 1999

Rental
Cost

Quantity
Cost (\$/ac)

Form of
Product

Type of Application

Notes

1	MD31	3.50	G	Lar-al floater		Dual application; with herbicide
1	MD31	4.50	G	Lar-al floater		Dual application; with herbicide
1	2		L	PT liquid bandwagon	\$1.50/ac	
1	2		L	PT coultter with tank	\$3.50/ac	
1	2		G	PT Willmar spin spreader	\$1/ac	With purchase of product
1	2		G	PT Willmar spin spreader		With purchase of product
1	2	4.00	L	AG-Chem Rogator hi-clearance sprayer		
1	2	4.00	G	Lar-al floater		
1	2	4.25	G	Lar-al floater		Single application
1	2	6.00	G	Tractor, JD 1810 air seeder		Deep banding
1	2	4.50	G	Lar-al floater		Dual application; with herbicide
1	4		G	PT Willmar spin spreader	\$0.75/ac	With purchase of product
1	4		G	PT Willmar spin spreader	\$6/tonne	With purchase of product
1	4		G	PT Willmar or Simonsen spin spreader	\$6/tonne	With purchase of product
1	4		L	PT Bandwagon	\$1.50/ac	With purchase of product
1	4		L	PT Bandwagon with dribbler	\$2.50/ac	With purchase of product

L - Liquid G - Granular A - Anhydrous SP - self-propelled PT - pull-type TM - Truck mounted FW - fixed wing aircraft

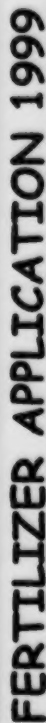
JD - John Deere Vers - Versatile ac - acre hr - hour n/c - no charge



FERTILIZER APPLICATION 1999

Region	Quantity	Custom Cost (\$/ac)	Form of Product	Type of Application	Rental Cost	Notes
	1	4	6	Lor-al floater		Single application
	1	4	6	Lor-al floater		
	1	4	6	Ag-chem Terrigator floater		Aerial application
	1	4	6	FW Thrush aircraft		Within 5 miles; under 200 lbs.
	1	4	6	FW Air Tractor aircraft		Deep banding fertilizer
	1	4	6	JD 8630 4wd tractor, JD air seeder		
	1	4	6	PT Valmar	\$3/ac	Dual application; with herbicide
	1	4	6	Ag-chem Terrigator floater		Dual application; with herbicide
	1	4	6	Lor-al floater		Dual application; with herbicide
	1	5	6	PT Willmar spin spreader	\$5/tonne	With purchase of product
	1	5	6	PT Willmar spin spreader	\$8/tonne	With purchase of product
	1	5	6	Willmar floater		Large acreage
	1	5	6	Willmar floater		Large acreage; with herbicide
	1	8	A	Cultivator with cold flow kit	\$3.50/ac	
	1	8	G	Willmar or Lor-al floater		Single application
	1	8	G	TM Willmar spreader		Single application
	1	8	G	Lor-al floater		

L - Liquid G - Granular A - Anhydrous SP - self-propelled PT - pull-type TM - Truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile ac - acre hr - hour n/c - no charge



FERTILIZER APPLICATION 1999

L - Liquid G - Granular A - Anhydrous SP - self-propelled PT - pull-type TM - Truck mounted FW - fixed wing aircraft

TH - John Deere Vers - Versatile ac - acre hr - hour N/c - no charge



FERTILIZER APPLICATION 1999

Product	Quantity	Custom Cost (\$/ac)	Form of Product	Type of Application	Rental Cost	Notes
1	16	2.50-3.00	L	Tractor, PT 32' or 35' Coulter		Single application
1	16	4.00	L	Terrigator liquid floater		
1	16	5.50	L	Tractor, Coulter with wagon		
1	16		A,G	PT Valmar box on harrow bar with cold flow kit	\$1.75/ac	With purchase of product
1	16	4.50	G	Lor-al or Terrigator floater		Dual application; with herbicide or seed
1	26		A	PT Edwards 34' cultivator with raven injector	\$1/ac	
1	26		G	PT Willmar spin spreader	\$6/tonne	With purchase of product
1	26		G	PT Willmar spin spreader	\$5/tonne	With purchase of product
1	26		G	PT Willmar spin spreader	\$5/tonne	With purchase of product
1	26	3.50	G	Lor-al floater		Single application
1	26	4.00	G	Lor-al floater		Single application
1	26	4.00	G	Lor-al floater		Single application
1	26	4.00-5.00	G	Lor-al floater		51-600 acres
1	26	4.50	G	Lor-al or Terrigator floater		Over 600 acres; with herbicide
1	26	4.50	G	Lor-al or Terrigator floater		Single application
1	26	4.50	G	Ag-chem Terrigator floater		51-600 acres; with herbicide
1	26	5.00	G	Lor-al or Terrigator floater		
1	26		A,G	PT Edwards 34' cultivator with raven injector with valmar box	\$2/ac	For (A) fertilizer with (G) herbicide

L - Liquid G - Granular A - Anhydrous SP - self-propelled PT - pull-type TM - Truck mounted FW - fixed wing aircraft
JD - John Deere Vers - Versatile ac - acre hr - hour n/c - no charge



FERTILIZER APPLICATION 1999

				Tractor, 50' cultivator with cold flow kit					
1	8	10.00	A						
1	8	5.00	G	Lor-al floater					Dual application; with herbicide
1	16		A	Pup wagon and delivery			\$60/tonne		With purchase of product
1	16		A	PT applicator			\$25/tonne		With purchase of product
1	16		A	Pup wagon, delivery and applicator			\$85-90/tonne		With purchase of product
1	16		G	PT Willmar spin spreader			\$0.75/ac		With purchase of product
1	16		G	PT Willmar spin spreader			\$0.75/ac		With purchase of product
1	16		G	PT Willmar spin spreader			\$1/ac		With purchase of product
1	16		L	PT Coulter with wagon			\$3/ac		
1	16		L	PT Coulter Injector with liquid fertilizer applicator			\$2/ac		With purchase of product
1	16		L	PT 60' dribble bar			\$1.50/ac		With purchase of product
1	16		L	PT dribble bar			\$1.50/ac		With purchase of product
1	16		L	PT Bandwagon with dribble wagon			\$1.50/ac		With purchase of product
1	16		L	PT Coulter with bandwagon			\$2/ac		With purchase of product
1	16	4.00	G	Lor-al floater					
1	16	4.00	G	Lor-al or Terrigator floater					
L - Liquid G - Granular A - Anhydrous SP - self-propelled PT - pull-type TM - Truck mounted FW - fixed wing aircraft JD - John Deere Vers - Versatile ac - acre hr - hour n/c - no charge									

1	16	2.50-3.00	L	Tractor, PT 32' or 35' Coulter	Single application	
1	16	4.00	L	Terrigator liquid floater		
1	16	5.50	L	Tractor, Coulter with wagon		
1	16		A, G	PT Valmar box on harrow bar with cold flow kit	With purchase of product	\$1.75/ac
1	16	4.50	G	Lor-al or Terrigator floater	Dual application, with herbicide or seed	
1	26		A	PT Edwards 34' cultivator with raven injector		\$1/ac
1	26		G	PT Willmar spin spreader	With purchase of product	\$6/tonne
1	26		G	PT Willmar spin spreader	With purchase of product	\$5/tonne
1	26		G	PT Willmar spin spreader	With purchase of product	\$5/tonne
1	26	3.50	G	Lor-al floater	Single application	
1	26	4.00	G	Lor-al floater	Single application	
1	26	4.00	G	Lor-al floater	Single application	
1	26	4.00-5.00	G	Lor-al floater	51-600 acres	
1	26	4.50	G	Lor-al or Terrigator floater	Over 600 acres; with herbicide	
1	26	4.50	G	Lor-al or Terrigator floater	Single application	
1	26	4.50	G	Ag-chem Terrigator floater	51-600 acres; with herbicide	
1	26	5.00	G	Lor-al or Terrigator floater		
1	26		A, G	PT Edwards 34' cultivator with raven injector with valmar box	For (A) fertilizer with (G) herbicide	\$2/ac

L - Liquid G - Granular A - Anhydrous SP - self-propelled PT - pull-type TM - Truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile ac - acre hr - hour n/c - no charge

FERTILIZER APPLICATION 1999



1	26	4.50	G	Lor-al floater	Dual application: with herbicide
1	26	4.50	G	Lor-al floater	Dual application: with herbicide
1	26	5.00	G	Ag-chem Terrigator floater	Dual application: with herbicide
1	26	5.50	G	Lor-al floater	Dual application: with herbicide
2	Calgary	4.50-5.00	L	Tractor, Kuelkers hay floats with liquid fertilizer applicator	Hay floating and liquid fertilizer application
2	Calgary	85/hr	L	Tractor, Kuelkers hay floats with liquid fertilizer applicator	Hay floating and liquid fertilizer application
2	Lacombe		G	PT Willmar spin spreader	With purchase of product
2	Lacombe		G	PT Willmar spin spreader	With purchase of product
2	Lacombe		G	PT Willmar spin spreader	With purchase of product
2	Lacombe		G	PT Willmar spin spreader	With purchase of product
2	Lacombe	3.75	G	Lor-al floater	
2	Lacombe	4.00	G	Tyler air flow floater	
2	Lacombe	4.00	G	Tyler Mertz floater	
2	Lacombe	4.00	G	Tyler air flow floater	
2	Lacombe	4.00	G	Tyler air flow floater	
2	Lacombe	4.25	G	Tyler Mertz floater	
2	Lacombe	4.50	G	Tyler Mertz floater	
2	Lacombe		G		Single application
2	Lacombe		G		Single application
2	Lacombe		G		Dual application: with herbicide

L - Liquid G - Granular A - Anhydrous SP - self-propelled PT - pull-type TM - Truck mounted FW - fixed wing aircraft

JD - John Deere Vers - Versatile ac - acres hr - hour n/c - no charge

FERTILIZER APPLICATION 1999



2	MD44	6	PT Willmar spin spreader	\$n/c	With purchase of product
2	MD44	6	PT Willmar spin spreader	\$50/day	With purchase of product
2	MD44	6	PT Willmar spin spreader	\$100/day	With purchase of product
2	MD44	6	PT Willmar spin spreader	\$0.75/ac	With purchase of product
2	MD44	6	Lor-al floater		
2	MD44	6	Tyler air flow floater		
2	MD44	6	Lor-al floater		
2	MD44	6	Lor-al floater or Big Wheel with GVM spreader		Single application
2	MD44	6	Lor-al floater		Single application
2	MD44	6	Lor-al floater		Single application
2	MD44	6	Valmar dual box floater		Dual application; with herbicide
2	MD44	6	Lor-al floater		Dual application; with herbicide
2	MD44	4, 6	Tractor, 50' cultivator with raven control and valmar box		Anhydrous fertilizer and granular herbicide
2	MD47	6	PT Willmar spin spreader	\$6/tonne	With purchase of product
2	MD48	6	PT Willmar spin spreader		With purchase of product
2	MD48	6	PT Willmar spin spreader	\$n/c	With purchase of product
2	MD48	6	PT Willmar spin spreader	\$1/ac	With purchase of product
2	MD48	6	PT Simonson spin spreader	\$1/ac	With purchase of product

L - Liquid G - Granular A - Anhydrous SP - self-propelled PT - pull-type TM - Truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile ac - acre hr - hour n/c - no charge



FERTILIZER APPLICATION 1999

Model

Year

Type of Application

Product

Rate (kg/ha)

Cost

1	26	4.50	G	Lor-al floater		Dual application; with herbicide
1	26	4.50	G	Lor-al floater		Dual application; with herbicide
1	26	5.00	G	Ag-chem Terrigator floater		Dual application; with herbicide
1	26	5.50	G	Lor-al floater		Dual application; with herbicide
2	Calgary	4.50-5.00	L	Tractor, Kuelkers hay floats with liquid fertilizer applicator		Hay floating and liquid fertilizer application
2	Calgary	85/hr	L	Tractor, Kuelkers hay floats with liquid fertilizer applicator		Hay floating and liquid fertilizer application
2	Lacombe		G	PT Willmar spin spreader	\$1.50/ac	With purchase of product
2	Lacombe		G	PT Willmar spin spreader	\$1.50/ac	With purchase of product
2	Lacombe		G	PT Willmar spin spreader	\$1.50/ac	With purchase of product
2	Lacombe		G	PT Willmar spin spreader	\$8/tonne	With purchase of product
2	Lacombe	3.75	G	Lor-al floater		
2	Lacombe	4.00	G	Tyler air flow floater		
2	Lacombe	4.00	G	Tyler Mertz floater		
2	Lacombe	4.00	G	Tyler air flow floater		Single application
2	Lacombe	4.00	G	Tyler air flow floater		Single application
2	Lacombe	4.25	G	Tyler Mertz floater		
2	Lacombe	4.50	G	Tyler Mertz floater		Dual application; with herbicide

L - Liquid G - Granular A - Anhydrous SP - self-propelled PT - pull-type TM - Truck mounted FW - fixed wing aircraft
JD - John Deere Vers - Versatile ac - acre hr - hour n/c - no charge



FERTILIZER APPLICATION 1999

Notes

Rental
Cost

Type of Application

Form of
Product

Custom
Cost (\$/ac)

County

2	MD44	G	PT Willmar spin spreader	\$ n/c	With purchase of product
2	MD44	G	PT Willmar spin spreader	\$50/day	With purchase of product
2	MD44	G	PT Willmar spin spreader	\$100/day	With purchase of product
2	MD44	G	PT Willmar spin spreader	\$0.75/ac	With purchase of product
2	MD44	G	Lor-al floater		
2	MD44	G	Tyler air flow floater		
2	MD44	G	Lor-al floater		Single application
2	MD44	G	Lor-al floater or Big Wheel with GVM spreader		Single application
2	MD44	G	Lor-al floater		Single application
2	MD44	G	Lor-al floater		Dual application; with herbicide
2	MD44	G	Valmar dual box floater		Dual application; with herbicide
2	MD44	G	Lor-al floater		Anhydrous fertilizer and granular herbicide
2	MD44	A, G	Tractor, 50' cultivator with raven control and valmar box	\$6/tonne	With purchase of product
2	MD44	G	PT Willmar spin spreader		With purchase of product
2	MD47	G	PT Willmar spin spreader		With purchase of product
2	MD48	G	PT Willmar spin spreader	\$ n/c	With purchase of product
2	MD48	G	PT Willmar spin spreader	\$1/ac	With purchase of product
2	MD48	G	PT Willmar spin spreader	\$1/ac	With purchase of product
2	MD48	G	PT Simonson spin spreader		

FW - fixed wing aircraft

TM - Truck mounted

PT - pull-type

ac - acres

hr - hour

n/c - no charge

A - Anhydrous SP - self-propelled

JD - John Deere

Vers - Versatile

L - Liquid G - Granular



FERTILIZER APPLICATION 1999

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L - Liquid G - Granular A - Anhydrous SP - self-propelled PT - pull-type TM - Truck mounted FW - fixed wing aircraft
JD - John Deere Vers - Versatillle ac - acre hr - hour N/c - no charge



FERTILIZER APPLICATION 1999

Region County Acres (6/94) Acres (6/94) Type of Application Partial Cost Notes

2	3	3.00	G	TM Willmar spin spreader	Single application
2	3	3.50	G	Willmar spin spreader floater	
2	3	4.00	G	Tyler air flow floater	Single application
2	3	4.00	G	Tyler air flow floater	
2	3	4.50	G	Tyler air flow floater	Dual application: with herbicide
2	3	4.50	G	Tyler air flow floater	Dual application: with herbicide
2	6		G	PT Willmar spin spreader	With purchase of product
2	6		G	PT Willmar spin spreader	With purchase of product
2	6		L	PT dribble bar	With purchase of product
2	6		L	PT Bandwagon	With purchase of product
2	6		L	PT Bandwagon	With purchase of product
2	6	4.00	G	Tyler air flow floater	
2	6	4.00	G	Lar-al floater	Single application
2	6	4.00	G	Tyler air flow floater	Single application
2	6	7.50	G	Tractor, 32' Morris cultivator with Flexcoil air seeder	Deep banding
2	6	4.25	G	Tyler air flow floater	Dual application: with herbicide
2	6	4.25	G	Lar-al floater	Dual application: with herbicide
2	17		L	PT pasture sprayer	With purchase of product

L - Liquid G - Granular A - Anhydrous SP - self-propelled PT - pull-type TM - Truck mounted FW - fixed wing aircraft
JD - John Deere Vers - Versatile ac - acre hr - hour n/c - no charge

FERTILIZER APPLICATION 1999



2	MD48	3.75	6	Lor-al floater	Single application
2	MD48	3.75	6	Willmar spin spreader floater	Single application
2	MD48	4.00	6	Lor-al floater	
2	MD48	4.00	6	Tyler air flow floater	
2	MD48	4.00	6	Tyler air flow floater	
2	MD48	4.00	6	Ag-chem Terrigator floater	
2	MD48	4.25	6	Ag-chem Terrigator floater	
2	MD48	4.50	6	Ag-chem Terrigator floater	
2	MD48	4.25	L	Ag-chem Terrigator floater	Single application
2	MD48	4.75	6	Ag-chem Terrigator floater	Dual applications with herbicide
2	MD99	4.00	6	Lor-al floater	Single application
2	SA2		6	PT Willmar spin spreader	\$1/oc or \$75/day Without purchase of product
2	SA4	8.50	6	Tractor, Bourgault air seeder	Deep banding
2	3		6	PT Willmar spin spreader	With purchase of product
2	3		6	PT Willmar spin spreader	With purchase of product
2	3		6	PT deep banding unit	\$2/oc

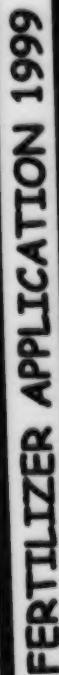
L - Liquid 6 - Granular A - Anhydrous SP - self-propelled PT - pull-type TM - Truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile ac - acre hr - hour N/c - no charge

FERTILIZER APPLICATION 1999



2	3	3.00	6	TM Willmar spin spreader	Single application
2	3	3.50	6	Willmar spin spreader floater	
2	3	4.00	6	Tyler air flow floater	
2	3	4.00	6	Tyler air flow floater	Single application
2	3	4.50	6	Tyler air flow floater	Dual application with herbicide
2	3	4.50	6	Tyler air flow floater	Dual application with herbicide
2	6		6	PT Willmar spin spreader	With purchase of product
2	6		6	PT Willmar spin spreader	With purchase of product
2	6		L	PT dribble bar	With purchase of product
2	6		L	PT Bandwagon	With purchase of product
2	6		L	PT Bandwagon	With purchase of product
2	6	4.00	6	Tyler air flow floater	Single application
2	6	4.00	6	Lor-al floater	Single application
2	6	4.00	6	Tyler air flow floater	Deep banding
2	6	7.50	6	Tractor, 32' Morris cultivator with Flocoil air seeder	
2	6	4.25	6	Tyler air flow floater	Dual application with herbicide
2	6	4.25	6	Lor-al floater	Dual application with herbicide
2	17		L	PT pasture sprayer	With purchase of product

L - Liquid G - Granular A - Anhydrous SP - self-propelled PT - pull-type TM - Truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile ac - acre hr - hour n/c - no charge

FW - fixed wing aircraft

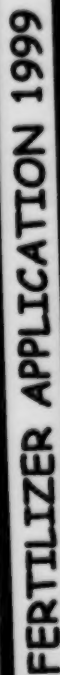
L - Liquid G - Granular A - Anhydrous SP - self-propelled PT - pull-type TM - Truck mounted
JD - John Deere Vers - Versatile ac - acre hr - hour n/c - no charge

FERTILIZER APPLICATION 1999



2	18	6.50	6	Tractor, Flexicoll air seeder	Single application; deep banding
2	18	7.00	6	Tractor, Flexicoll 40' air seeder	Single application; deep banding
2	23		6	PT Willmar spin spreader	5 ton spreader
2	23		6	PT Mobility spin spreader	With purchase of product
2	23		6	PT Willmar spin spreader	4 ton spreader
2	23		6	PT Willmar spin spreader	With purchase of product
2	23		6	PT Willmar spin spreader	With purchase of product
2	23		6	PT Willmar spin spreader	With purchase of product
2	23		L	PT dribble bar	With purchase of product
2	23		L	Ag-chem Terrigator floater	Single application
2	23	4.00-4.75	L	Terrigator liquid floater	Hayland
2	23	3.95	6	Lor-al floater	Cropland
2	23	4.00	6	Lor-al floater	Single application
2	23	4.00	6	Ag-chem Terrigator floater	Single application
2	23	4.00	6	Lor-al floater	
2	23	4.00	6	Tyler air flow floater	
2	23	4.00	6	Tyler air flow floater	Single application
2	23	4.00	6	Titon 4375 floater	Single application

L - Liquid G - Granular A - Anhydrous SP - self-propelled PT - pull-type TM - Truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile ac - acre hr - hour n/c - no charge



					\$20/Tonne	With purchase of product
PT Willmar spin spreader	G					With purchase of product
PT Simonson spin spreader	G				\$1/ac	With purchase of product
PT Willmar spin spreader	G				\$5/tonne	With purchase of product
PT Willmar spin spreader	G				\$20/day	With purchase of product
PT Willmar spin spreader	G				\$n/c	With purchase of product
AG-Chem or Tyler floater	G	4.00				Single application
Ag-chem Terrigator floater	G	4.00				Single application
Tyler air flow floater	G	4.00				
Ag-chem Terrigator floater	G	4.00				
Lor-al floater	G	4.00				
Lor-al or Terrigator floater	G	4.00				
Ag-chem Terrigator floater	G	4.00				Single application
Ag-chem Terrigator floater	G	4.25				Single application
Lor-al floater	G	4.25				Single application
Tyler air flow floater	G	4.50				Single application
Ag-chem Terrigator floater	G	4.50				Dual application; with herbicide
Tyler air flow floater	G	4.75-5.00				Dual application; with herbicide
Ag-chem Terrigator floater	G	4.75				Dual application; with herbicide
Ag-chem Terrigator floater	G	5.00				Dual application; with herbicide
AG-Chem or Tyler floater	G	5.00				Dual application; with herbicide

L - Liquid G - Granular A - Anhydrous SP - self-propelled PT - pull-type TM - Truck mounted PW - fixed wing aircraft
 n/c - no charge

FERTILIZER APPLICATION 1999



Notes

Rental
Cost

Form of
Product

Quantity

Unit Cost (\$/ac)

Application

2	18	6.50	G	Tractor, Flexicoil air seeder	Single application; deep banding
2	18	7.00	G	Tractor, Flexicoil 40' air seeder	Single application; deep banding
2	23		G	PT Willmar spin spreader	5 ton spreader
2	23		G	PT Mobility spin spreader	With purchase of product
2	23		G	PT Willmar spin spreader	4 ton spreader
2	23		G	PT Willmar spin spreader	With purchase of product
2	23		G	PT Willmar spin spreader	With purchase of product
2	23		L	PT dribble bar	With purchase of product
2	23	4.00-4.75	L	Ag-chem Terrigator floater	Single application
2	23	4.50-5.50	L	Terrigator liquid floater	Hayland
2	23	3.95	G	Lor-al floater	Cropland
2	23	4.00	G	Lor-al floater	Single application
2	23	4.00	G	Ag-chem Terrigator floater	Single application
2	23	4.00	G	Lor-al floater	
2	23	4.00	G	Tyler air flow floater	Single application
2	23	4.00	G	Tyler air flow floater	Single application
2	23	4.00	G	Titan 4375 floater	

L - Liquid G - Granular A - Anhydrous SP - self-propelled PT - pull-type TM - Truck mounted FW - fixed wing aircraft
JD - John Deere Vers - Versatile ac - acre hr - hour n/c - no charge

FERTILIZER APPLICATION 1999



Form or Product		Custom (\$/ac)		Type of Application		Notes	
2	23	4.25	6	Ag-chem Terrigator floater	Hayland		
2	23	4.25	6	Lar-al floater	Single application		
2	23	4.25	6	Tyler air flow floater	Single application		
2	23	4.50	6	Lar-al floater	Dual application; with herbicide		
2	23	4.00	6	Tifton 4375 floater	Dual application; with herbicide		
2	23	4.50	6	Lar-al floater	Dual application; with herbicide		
2	23	4.75	6	Tyler air flow floater	Dual application; with herbicide		
3	MD52		6	PT Simonson spin spreader	With purchase of product	\$0.50/ac	
3	MD52		A	PT cultivator with MVD cold flow kit	With purchase of product	\$1.50/ac	
3	MD52	3.75	6	Ag-chem Terrigator floater	Single application		
3	MD52	3.75	6	Lar-al or Terrigator floater	Plus fuel		
3	MD52	5.50-6.00	A	Tractor, 38' cultivator with cold flow kit	Dual application; with herbicide		
3	MD52	4.25	6	Lar-al or Terrigator floater	With purchase of product	\$10/tonne	
3	MD61		6	PT spin spreader			
3	MD61	\$250/hr	L	JD or Rogator hi-clearance sprayer			
3	9		6	PT Willmar spin spreader	With purchase of product	\$n/c	

L - Liquid G - Granular A - Anhydrous SP - self-propelled PT - pull-type TM - Truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile ac - acre hr - hour n/c - no charge



FERTILIZER APPLICATION 1999

Partial
Cost

Form of
Application

Quantity
Cost (\$/ac)

3	9	3.00	L	Tractor, cultivator with liquid kit	Single application
3	9	4.00	G	Ag-chem Terrigator floater	Single or dual application
3	13	4.00	G	Ag-chem Terrigator floater	Single application
3	19		G	PT Willmar spin spreader	With purchase of product
3	19		G	PT Willmar spin spreader	With purchase of product
					\$7/tonne
3	19	3.99	G	Ag-chem Terrigator floater	Single application
3	19	4.00	G	Tyler Mertz floater	Dual application; liquid herbicide on granular fertilizer
3	19	4.25	G	Ag-chem Terrigator floater	Dual application; with herbicide
3	19	4.00	G	Tyler Mertz floater	Dual application; with herbicide
3	19	4.00	G	Tyler Mertz floater	
3	19	4.50	G	Ag-chem Terrigator floater	
3	22		G	PT Willmar spin spreader	With purchase of product
3	22		G	PT Willmar spin spreader	With purchase of product
3	22		G	PT Willmar spin spreader	With purchase of product
3	22		G	PT Willmar spin spreader	With purchase of product
					\$1/ac
3	22	3.00	G	TM Willmar spin spreader	With purchase of product
3	22	4.00	G	Ag-chem Terrigator floater	With purchase of product
					\$10/tonne
					\$7/tonne

Single application

L - Liquid G - Granular A - Anhydrous SP - self-propelled PT - pull-type TM - Truck mounted FW - fixed wing aircraft
JD - John Deere Vers - Versatile ac - acre hr - hour n/c - no charge

FERTILIZER APPLICATION 1999



2	23	4.25	6	Ag-chem Terrigator floater	Hayland
2	23	4.25	6	Lor-al floater	Single application
2	23	4.25	6	Tyler air flow floater	Single application
2	23	4.50	6	Lor-al floater	Dual application; with herbicide
2	23	4.00	6	Tifton 4375 floater	Dual application; with herbicide
2	23	4.50	6	Lor-al floater	Dual application; with herbicide
2	23	4.75	6	Tyler air flow floater	Dual application; with herbicide
3	MD52		6	PT Simonson spin spreader	With purchase of product
3	MD52		A	PT cultivator with MVD cold flow kit	With purchase of product
3	MD52	3.75	6	Ag-chem Terrigator floater	Single application
3	MD52	3.75	6	Lor-al or Terrigator floater	Plus fuel
3	MD52	5.50-6.00	A	Tractor, 38' cultivator with cold flow kit	Dual application; with herbicide
3	MD52	4.25	6	Lor-al or Terrigator floater	With purchase of product
3	MD61		6	PT spin spreader	
3	MD61	\$250/hr	L	JD or Rapstar hi-clearance sprayer	\$10/tonne
3	9		6	PT Willmar spin spreader	With purchase of product

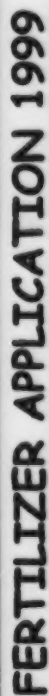
L - Liquid G - Granular A - Anhydrous SP - self-propelled PT - pull-type TM - Truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile ac - acre hr - hour n/c - no charge

FERTILIZER APPLICATION 1999



3	9	3.00	L	Tractor, cultivator with liquid kit	Single application
3	9	4.00	G	Ag-chem Terrigator floater	Single or dual application
3	13	4.00	G	Ag-chem Terrigator floater	Single application
3	19		G	PT Willmar spin spreader	With purchase of product
3	19		G	PT Willmar spin spreader	With purchase of product
3	19	3.99	G	Ag-chem Terrigator floater	Single application
3	19	4.00	G	Tyler Mertz floater	
3	19	4.25	G	Ag-chem Terrigator floater	
3	19	4.00	G/L	Tyler Mertz floater	Dual application: liquid herbicide on granular fertilizer
3	19	4.00	G	Tyler Mertz floater	Dual application: with herbicide
3	19	4.50	G	Ag-chem Terrigator floater	Dual application: with herbicide
3	22		G	PT Willmar spin spreader	With purchase of product
3	22		G	PT Willmar spin spreader	With purchase of product
3	22		G	PT Willmar spin spreader	With purchase of product
3	22		G	PT Willmar spin spreader	With purchase of product
3	22	3.00	G	TM Willmar spin spreader	
3	22	4.00	G	Ag-chem Terrigator floater	Single application

L - Liquid G - Granular A - Anhydrous SP - self-propelled PT - pull-type TM - Truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile ac - acre hr - hour n/c - no charge

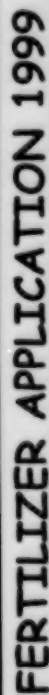
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FERTILIZER APPLICATION 1999

4	Lac Ste Anne	6	PT Willmar spin spreader	\$10/tonne	With purchase of product
4	Lac Ste Anne	3.50	Willmar spin spreader floater		
4	MD77	6	PT Willmar spin spreader	\$5/tonne	With purchase of product
4	MD77	4.00	Ag-chem Terrigator floater		Single application
4	MD90	6	PT Willmar spin spreader	\$7/tonne	With purchase of product
4	MD90	6	PT Willmar or Simonsen spin spreader	\$7/tonne	With purchase of product
4	MD90	A, B	Cultivator with cold flow kit and Valmar box	\$2.50/ac	With purchase of product
4	MD90	6	TM Willmar spin spreader		Single application
4	MD90	4.00	Ag-chem Terrigator floater		Single application
4	MD90	4.00	Ag-chem Terrigator floater		Single application
4	MD90	4.25	Ag-chem Terrigator floater		Single application
4	MD90	4.25	Willmar floater		Single application
4	MD90	5.00	FW Cassina Ag Truck aircraft		Depends on application rate
4	MD90	4.50	Ag-chem Terrigator floater		Dual application: with herbicide
4	MD92	6	PT Willmar spin spreader	\$3/tonne	With purchase of product
4	MD92	2.50	TM Willmar spin spreader		Single application
4	MD92	2.75	SP Willmar spin spreader		Single application

L - Liquid 6 - Granular A - Anhydrous SP - self-propelled PT - pull-type TM - Truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile ac - acres hr - hour n/c - no charge



FERTILIZER APPLICATION 1999

L - Liquid G - Granular A - Anhydrous SP - self-propelled PT - pull-type TM - Truck mounted FW - fixed wing aircraft



FERTILIZER APPLICATION 1999

Region	County	Custom Cost (\$/ac)	Form of Product	Type of Applicator	Rental Cost	Notes
4	Lac Ste Anne		6	PT Willmar spin spreader	\$10/tonne	With purchase of product
4	Lac Ste Anne	3.50	6	Willmar spin spreader floater		
4	MD77		6	PT Willmar spin spreader	\$5/tonne	With purchase of product
4	MD77	4.00	6	Ag-chem Terrigator floater		Single application
4	MD90		6	PT Willmar spin spreader	\$7/tonne	With purchase of product
4	MD90		6	PT Willmar or Simonson spin spreader	\$7/tonne	With purchase of product
4	MD90		A,6	Cultivator with cold flow kit and Valmar box	\$2.50/ac	With purchase of product
4	MD90	4.00	6	TM Willmar spin spreader		Single application
4	MD90	4.00	6	Ag-chem Terrigator floater		Single application
4	MD90	4.00	6	Ag-chem Terrigator floater		Single application
4	MD90	4.25	6	Ag-chem Terrigator floater		Single application
4	MD90	4.25	6	Willmar floater		Single application
4	MD90	5.00	6	FW Cessna Ag Truck aircraft		Depends on application rate
4	MD90	4.50	6	Ag-chem Terrigator floater		Dual application; with herbicide
4	MD92		6	PT Willmar spin spreader	\$3/tonne	With purchase of product
4	MD92	2.50	6	TM Willmar spin spreader		Single application
4	MD92	2.75	6	SP Willmar spin spreader		Single application

L - Liquid 6 - Granular A - Anhydrous SP - self-propelled PT - pull-type TM - Truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile ac - acre hr - hour n/c - no charge

FERTILIZER APPLICATION 1999



4	MD92	4.25	G	Ag-chem Terrigator floater	Single application
4	MD92	4.50	G	Ag-chem Terrigator floater	Single application
4	MD92	4.95	G	Ag-chem Terrigator floater	Dual application; with herbicide
4	Parkland		G	PT Willmar spin spreader	With purchase of product
4	Parkland	3.50	G	Ag-chem Terrigator floater	Single application
4	Parkland	3.95	G	Tyler air flow floater	Single application
4	Parkland	4.50	G	Ag-chem Terrigator floater	Single application
4	Parkland	4.50	G	Ag-chem Terrigator floater	Dual application; with herbicide
4	Strathcona		G	PT Simonson spin spreader	With purchase of product
4	Strathcona	4.00	G	Ag-chem Terrigator floater	Single application
4	Strathcona	4.00	G	Valmar air spreader floater	Single application
4	Strathcona	4.00	G	Valmar air spreader floater	Dual application; with herbicide
4	7		A	Cultivator with cold flow kit	With purchase of product
4	7		G	PT Willmar spin spreader	With purchase of product
4	7	4.00	G	Ag-chem Terrigator floater	Single application

L - Liquid G - Granular A - Anhydrous SP - self-propelled PT - pull-type TM - Truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile ac - acre hr - hour n/c - no charge

FERTILIZER APPLICATION 1999



Region	County	Custom Cost (\$/ha)	Front of Product	Type of Applicator	Rental Cost	Notes
4	10	4.00	6	Ag-chem Terrigator floater		Single application
4	10	5.00	6	FW Air Tractor aircraft		Plus \$0.01-0.02/lb applied per acre; aerial application
4	10	9.50	6	Tractor, Concords air seeder		Deep banding
4	10	4.50	6	Ag-chem Terrigator floater		Dual application; with herbicide
4	11		6	PT Willmar spin spreader	\$5/tonne	With purchase of product
4	11		6	PT Willmar spin spreader	\$30/total	Under 50 acres; with purchase of product
4	11		6	PT Willmar spin spreader	\$50/total	Over 50 acres; with purchase of product
4	11		A	Cultivator with cold flow kit	\$20/tonne	Customer has own nurse wagon
4	11		A	Cultivator with cold flow kit and nurse wagon	\$40/tonne	
4	11		A	Cultivator with cold flow kit and nurse wagon	\$80/tonne	Includes delivery
4	11	4.00	6	Ag-chem Terrigator floater		Single application
4	11	4.25	6	Ag-chem Terrigator floater		Single application
4	11	4.25	6, L	Ag-chem Terrigator floater		Dual application; with liquid fertilizer
4	11	4.50	6	Ag-chem Terrigator floater		Dual application; with herbicide
4	11	4.50	6	Ag-chem Terrigator floater		Dual application; with herbicide
4	12	6.50	A	Tractor, IH 5500 chisel plow with cold flow kit		
4	12	8.00-9.00	A	Tractor, 33-34' cultivator with cold flow kit		
4	12	9.00	A	Tractor, chisel plow with cold flow kit with rotary harrows & packer bar		

L - Liquid G - Granular A - Anhydrous SP - self-propelled PT - pull-type TM - Truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile ac - acre hr - hour n/c - no charge

FERTILIZER APPLICATION 1999



4	MD92	4.25	6	Ag-chem Terrigator floater	Single application
4	MD92	4.50	6	Ag-chem Terrigator floater	Single application
4	MD92	4.95	6	Ag-chem Terrigator floater	Dual application with herbicide
4	Parkland		6	PT Willmar spin spreader	With purchase of product
4	Parkland	3.50	6	Ag-chem Terrigator floater	Single application
4	Parkland	3.95	6	Tyler air-flow floater	Single application
4	Parkland	4.50	6	Ag-chem Terrigator floater	Single application
4	Parkland	4.50	6	Ag-chem Terrigator floater	Dual application with herbicide
4	Strathcona		6	PT Simonson spin spreader	With purchase of product
4	Strathcona	4.00	6	Ag-chem Terrigator floater	Single application
4	Strathcona	4.00	6	Valmar air spreader floater	Single application
4	Strathcona	4.00	6	Valmar air spreader floater	Dual application with herbicide
4	7	A		Cultivator with cold flow kit	With purchase of product
4	7	6		PT Willmar spin spreader	With purchase of product
4	7	6		Ag-chem Terrigator floater	Single application

L - Liquid 6 - Granular A - Anhydrous SP - self-propelled PT - pull-type TM - Truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile ac - acre hr - hour n/c - no charge

FERTILIZER APPLICATION 1999



4	10	4.00	6	Ag-chem Terrigator floater	Single application Plus \$0.01-0.02/lb applied per acre: aerial application Deep banding
4	10	5.00	6	FW Air Tractor aircraft	
4	10	9.50	6	Tractor, Concorde air seeder	
4	10	4.50	6	Ag-chem Terrigator floater	Dual application: with herbicide
4	11		6	PT Willmar spin spreader	With purchase of product
4	11		6	PT Willmar spin spreader	Under 50 acres: with purchase of product
4	11		6	PT Willmar spin spreader	Over 50 acres: with purchase of product
4	11		A	Cultivator with cold flow kit	Customer has own nurse wagon
4	11		A	Cultivator with cold flow kit and nurse wagon	Includes delivery
4	11		A	Cultivator with cold flow kit and nurse wagon	
4	11	4.00	6	Ag-chem Terrigator floater	Single application
4	11	4.25	6	Ag-chem Terrigator floater	Single application
4	11	4.25	6 L	Ag-chem Terrigator floater	Dual application: with liquid fertilizer
4	11	4.50	6	Ag-chem Terrigator floater	Dual application: with herbicide
4	11	4.50	6	Ag-chem Terrigator floater	Dual application: with herbicide
4	12	6.50	A	Tractor, IH 5500 chisel plow with cold flow kit	
4	12	8.00-9.00	A	Tractor, 33-34' cultivator with cold flow kit	
4	12	9.00	A	Tractor, chisel plow with cold flow kit with rotary harrows & packer bar	

L - Liquid 6 - Granular A - Anhydrous SP - self-propelled PT - pull-type TM - Truck mounted FW - fixed wing aircraft
JD - John Deere Vers - Versatile ac - acre hr - hour n/c - no charge



FERTILIZER APPLICATION 1999

4	12	7.00	A,B	Tractor, chisel plow with cold flow kit with Valmar box	Dual application
4	12	9.50	A,B	Tractor, chisel plow with cold flow kit with Valmar box with rotary harrows & packer bar	
4	25		6	PT Willmar or Simonson spin spreader	\$2/ha or \$40/day With purchase of product
4	25		6	PT Simonson spin spreader	\$10/tonne With purchase of product
4	25	4.25	6	PT Willmar or Simonson spin spreader	Single application
4	25	4.50	6	Ag-chem Terrigator floater	Single application
4	25	4.50	6	Ag-chem Terrigator floater	Dual application with herbicide
5	MD16		6	PT Willmar spin spreader	With purchase of product
5	MD19	3.00	6	Tractor, PT Willmar spin spreader	
5	MD19	6.50	A	Tractor, Leon chisel plow with cold flow kit and harrows	Single application
5	MD19	7.00	A	Tractor, 25' cultivator with cold flow kit	
5	MD21		6	PT Willmar spin spreader	With purchase of product
5	MD21	4.00	6	Lor-al floater	Single application
5	MD21	4.00	L	Ag-chem Terrigator floater	Single application
5	MD21	4.25	L	Ag-chem Rogator hi-clearance sprayer	Single application
5	MD130	4.00	6	Lor-al floater	Customs hauls fertilizer
5	MD130	4.50	6	Lor-al floater	Single application

L - Liquid 6 - Granular A - Aushress SP - self-propelled PT - pull-type TM - Truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatills ac - acres hr - hour n/c - no charge

FERTILIZER APPLICATION 1999

5	MD131	6	PT Willmar spin spreader	\$50/day	With purchase of product
5	MD131	6	Lor-al floater		Single application
5	MD131	6	Lor-al floater		Single application
5	MD131	6	Lor-al floater		Dual application: with herbicide
5	MD133	6	PT Willmar spin spreader	\$50/day	With purchase of product
5	MD133	6	Lor-al floater		Single application
5	MD133	6	Lor-al floater		Single application
5	MD136	L	Ag-chem Terrigator floater		Single application
5	MD136	L	AG-Chem Rogator hi-clearance sprayer		Single application
5	MD136	6	Lor-al floater		Single application
5	MD136	6	PT Willmar spin spreader	\$n/c	With purchase of product
5	MD136	6	PT Willmar spin spreader	\$50/day	
5	MD136	6	Lor-al floater		Single application
5	MD136	6	Lor-al floater		Single application
5	MD136	6	Lor-al floater		Dual application: with herbicide

L - Liquid 6 - Granular

A - Anhydrous SP - self-propelled PT - pull-type TM - Truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile ac - acre hr - hour n/c - no charge

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FERTILIZER APPLICATION 1999

Notes

Rental
Cost

Form of
Product

Custom
Cost (\$/ac)

County

Region

5	MD131	6	PT Willmar spin spreader		\$50/day	With purchase of product
5	MD131	6	Lor-al floater	4.00		Single application
5	MD131	6	Lor-al floater	4.50		Single application
5	MD131	6	Lor-al floater	4.50		Dual application; with herbicide
5	MD131	6	Lor-al floater	4.50		
5	MD133	6	PT Willmar spin spreader		\$50/day	With purchase of product
5	MD133	6	Lor-al floater	4.00		Single application
5	MD133	6	Lor-al floater	4.00		Single application
5	MD136	L	Ag-Chem Terrigator floater	4.00		Single application
5	MD136	L	AG-Chem Rogator hi-clearance sprayer	4.00		Single application
5	MD136	6	Lor-al floater	4.00		Single application
5	MD136	6	PT Willmar spin spreader		\$n/c	With purchase of product
5	MD136	6	PT Willmar spin spreader		\$50/day	
5	MD136	6	Lor-al floater	3.50		Single application
5	MD136	6	Lor-al floater	4.00-4.25		Single application
5	MD136	6	Lor-al floater	4.00		Dual application; with herbicide

FW - fixed wing aircraft

TM - Truck mounted
PT - pull-type
SP - self-propelled
Vers - Versatile
JD - John Deere

ac - acre
hr - hour
n/c - no charge

L - Liquid
G - Granular
A - Anhydrous

HERBICIDE APPLICATION 1999



1	MD1	4.00	L	Willmar Eagle hi-clearance sprayer	5-10 gallons water
1	MD6	2.50	G	TM Valmar	
1	MD6	2.50	G	TM Valmar	
1	MD6	4.25	G	Terrigator floater	
1	MD6	4.00	L	Rogator or Patriot hi-clearance sprayer	5-10 gallons water
1	MD6	4.00	L	Ag-chem Rogator hi-clearance sprayer	5 gallons water
1	MD6	4.00	L	Willmar hi-clearance sprayer	5 gallons water
1	MD6	4.25	L	Rogator or Patriot hi-clearance sprayer	20 gallons water
1	MD6	4.50	L	Ag-chem Rogator hi-clearance sprayer	10 gallons water
1	MD6	5.00	L	Willmar hi-clearance sprayer	10 gallons water
1	MD6	6.00	L	Willmar hi-clearance sprayer	20 gallons water
1	MD6	6.00	L	Willmar hi-clearance sprayer	20 gallons water
1	MD9	4.25	L	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
1	MD14		G	PT Valmar	With purchase of product
1	MD14	4.00	G	Lor-al floater	Single application

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne



HERBICIDE APPLICATION 1999

Region	County	Custom Rate (\$/ac)	Form of Product	Type of Application	Rental Cost	Notes
1	MD14	3.75	L	Willmar hi-clearance sprayer		5 gallons water
1	MD14	3.75	L	Willmar Eagle hi-clearance sprayer		5 gallons water
1	MD14	4.00	L	Willmar hi-clearance sprayer		10 gallons water
1	MD14	4.00	L	Willmar Eagle hi-clearance sprayer		10 gallons water
1	MD14	4.50	L	Willmar Eagle hi-clearance sprayer		15 gallons water
1	MD14	4.50	L	FW Air Tractor or Ag Cat aircraft		1 gallon water
1	MD14	4.50	L	Willmar hi-clearance sprayer		20 gallons water
1	MD14	5.00	L	Ag-chem Rogator hi-clearance sprayer		5 gallons water
1	MD14	5.00	L	FW Air Tractor or Ag Cat aircraft		2 gallons water
1	MD14	5.00	L	Willmar Eagle hi-clearance sprayer		20 gallons water
1	MD14	5.00	L	Ag-chem Rogator hi-clearance sprayer		10 gallons water
1	MD14	4.50	G	Lor-al floater		Dual application; with fertilizer
1	MD14	4.75	G	Lor-al floater		Dual application; with fertilizer
1	MD26		G	PT Nodet	\$0.50/ac	With purchase of product
1	MD26		G	PT Nodet	\$0.50/ac	With purchase of product
1	MD26	4.00	L	Ag-chem Rogator hi-clearance sprayer		5 gallons water
1	MD26	4.00	L	Ag-chem Rogator hi-clearance sprayer		5 gallons water

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne



HERBICIDE APPLICATION 1999

5-10 gallons water

Willmar Eagle hi-clearance sprayer

L

4.00

MDI

1

TM Valmar

G

2.50

MD6

1

TM Valmar

G

2.50

MD6

1

Terrigator floater

G

4.25

MD6

1

Rogator or Patriot hi-clearance sprayer

L

4.00

MD6

1

Ag-chem Rogator hi-clearance sprayer

L

4.00

MD6

1

Willmar hi-clearance sprayer

L

4.00

MD6

1

Rogator or Patriot hi-clearance sprayer

L

4.25

MD6

1

Ag-chem Rogator hi-clearance sprayer

L

4.50

MD6

1

Willmar hi-clearance sprayer

L

5.00

MD6

1

Willmar hi-clearance sprayer

L

6.00

MD6

1

Willmar hi-clearance sprayer

L

6.00

MD6

1

Ag-chem Rogator hi-clearance sprayer

L

4.25

MD9

1

PT Valmar

G

MDI4

1

Lor-al floater

G

4.00

MDI4

1

With purchase of product

\$1/ac

Single application

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne



HERBICIDE APPLICATION 1999

1	MD14	3.75	L	Willmar hi-clearance sprayer	5 gallons water
1	MD14	3.75	L	Willmar Eagle hi-clearance sprayer	5 gallons water
1	MD14	4.00	L	Willmar hi-clearance sprayer	10 gallons water
1	MD14	4.00	L	Willmar Eagle hi-clearance sprayer	10 gallons water
1	MD14	4.50	L	Willmar Eagle hi-clearance sprayer	15 gallons water
1	MD14	4.50	L	FW Air Tractor or Ag Cat aircraft	1 gallon water
1	MD14	4.50	L	Willmar hi-clearance sprayer	20 gallons water
1	MD14	5.00	L	Ag-chem Rogator hi-clearance sprayer	5 gallons water
1	MD14	5.00	L	FW Air Tractor or Ag Cat aircraft	2 gallons water
1	MD14	5.00	L	Willmar Eagle hi-clearance sprayer	20 gallons water
1	MD14	5.00	L	Ag-chem Rogator hi-clearance sprayer	10 gallons water
Dual application: with fertilizer					
1	MD14	4.50	G	Lor-al floater	Dual application: with fertilizer
1	MD14	4.75	G	Lor-al floater	Dual application: with fertilizer
1	MD26		G	PT Nodet	With purchase of product
1	MD26		G	PT Nodet	With purchase of product
1	MD26	4.00	L	Ag-chem Rogator hi-clearance sprayer	5 gallons water
1	MD26	4.00	L	Ag-chem Rogator hi-clearance sprayer	5 gallons water

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne



HERBICIDE APPLICATION 1999

1	MD26	5.00	L	Ag-chem Rogator hi-clearance sprayer	10 gallons water
1	MD26	5.00	L	Ag-chem Rogator hi-clearance sprayer	10 gallons water
1	MD26	5.50	L	Ag-chem Rogator hi-clearance sprayer	15 gallons water
1	MD31	3.50-4.00	L	Ag-chem Rogator hi-clearance sprayer	5 gallons water
1	MD31	4.00	L	Spray Master ground sprayer with nurse truck and two operators	10-12 gallons water; includes treated bought water
1	MD31	4.00	L	FW Thrush or AG-Cat aircraft	1 gallon water; within 20 mile radius
1	MD31	4.00	L	FW Cassia Ag Wagon aircraft	2 gallons water
1	MD31	4.00	L	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
1	MD31	4.50	L	FW Thrush or AG-Cat aircraft	2 gallons water; within 20 mile radius
1	MD31	4.50	L	FW Thrush or AG-Cat aircraft	1 gallon water; over 20 mile radius
1	MD31	4.50	L	Ag-chem Rogator hi-clearance sprayer	15-20 gallons water
1	MD31	4.50	L	Ag-chem Rogator hi-clearance sprayer	15-20 gallons water
1	MD31	4.50	L	Hoglie hi-clearance sprayer	5 gallons water
1	MD31	4.50	L	FW Thrush, Ag Cat, Parnes or Dramader aircraft	1 gallon water; GPS equipped
1	MD31	5.00	L	FW Thrush, Ag Cat, Parnes or Dramader aircraft	2 gallons water; GPS equipped
1	MD31	5.00	L	Tractor, 80' Blanchard boom sprayer	5-10 gallons water
1	MD31	5.00	L	Hoglie hi-clearance sprayer	10 gallons water
1	MD31	5.00	L	FW Thrush or AG-Cat aircraft	2 gallons water; over 20 mile radius
1	MD31	5.00	L	Tractor, 80' Blanchard boom sprayer	5-10 gallons water

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tams



HERBICIDE APPLICATION 1999

1	MD31	5.50	L	FW Thrush, Ag Cat, Pawnee or Dromader aircraft	3 gallons water; GPS equipped
1	MD31	5.50	L	FW Thrush, Ag Cat, Pawnee or Dromader aircraft	5 gallons water; GPS equipped
1	MD31	5.50	L	FW Thrush or AG-Cat aircraft	5 gallons water
1	MD31	5.50	L	FW Cessna Ag Wagon aircraft	5 gallons water
1	MD31	5.50	L	FW Thrush or AG-Cat aircraft	4 gallons water
1	MD31	3.50	G	Lar-al floater	Dual application with fertilizer
1	MD31	4.50	G	Lar-al floater	Dual application with fertilizer
1	2		G	PT Valmar	With purchase of product
1	2		G	PT Valmar	With purchase of product
1	2	3.75	L	FW Cessna Ag Truck aircraft	1 gallon water
1	2	4.00	L	Gallenberg hi-clearance sprayer	5-8 gallons water
1	2	4.00	L	FW Cessna Ag Truck aircraft	2 gallons water
1	2	4.00	L	Willmar Eagle hi-clearance sprayer	5 gallons water
1	2	4.25	L	Willmar Eagle hi-clearance sprayer	10 gallons water
1	2	4.50	L	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
1	2	4.50	L	FW Cessna Ag Truck aircraft	4 gallons water
1	2	4.50	L	Gallenberg hi-clearance sprayer	10 gallons water

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne

HERBICIDE APPLICATION 1999



Quantity Price Rental

Custom Form of
Ag. (5/20) Product Type of Applicator

Notes

1	MD26	5.00	L	Ag-chem Rogator hi-clearance sprayer	10 gallons water
1	MD26	5.00	L	Ag-chem Rogator hi-clearance sprayer	10 gallons water
1	MD26	5.50	L	Ag-chem Rogator hi-clearance sprayer	15 gallons water
1	MD31	3.50-4.00	L	Ag-chem Rogator hi-clearance sprayer	5 gallons water
1	MD31	4.00	L	Spray Master ground sprayer with nurse truck and two operators	10-12 gallons water; includes treated bought water
1	MD31	4.00	L	FW Thrush or AG-Cat aircraft	1 gallon water; within 20 mile radius
1	MD31	4.00	L	FW Cessna Ag Wagon aircraft	2 gallons water
1	MD31	4.00	L	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
1	MD31	4.50	L	FW Thrush or AG-Cat aircraft	2 gallons water; within 20 mile radius
1	MD31	4.50	L	FW Thrush or AG-Cat aircraft	1 gallon water; over 20 mile radius
1	MD31	4.50	L	Ag-chem Rogator hi-clearance sprayer	15-20 gallons water
1	MD31	4.50	L	Ag-chem Rogator hi-clearance sprayer	15-20 gallons water
1	MD31	4.50	L	Hagie hi-clearance sprayer	5 gallons water
1	MD31	4.50	L	FW Thrush, Ag Cat, Pawnee or Dromader aircraft	1 gallon water; GPS equipped
1	MD31	5.00	L	FW Thrush, Ag Cat, Pawnee or Dromader aircraft	2 gallons water; GPS equipped
1	MD31	5.00	L	Tractor, 80' Blanchard boom sprayer	5-10 gallons water
1	MD31	5.00	L	Hagie hi-clearance sprayer	10 gallons water
1	MD31	5.00	L	FW Thrush or AG-Cat aircraft	2 gallons water; over 20 mile radius
1	MD31	5.00	L	Tractor, 80' Blanchard boom sprayer	5-10 gallons water

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne



HERBICIDE APPLICATION 1999

Region	County	Custom Cost (\$/ac)	Form of Product	Type of Applicator	Rental Cost	Notes
1	MD31	5.50	L	FW Thrush, Ag Cat, Pawnee or Dramoder aircraft		3 gallons water; GPS equipped
1	MD31	5.50	L	FW Thrush, Ag Cat, Pawnee or Dramoder aircraft		5 gallons water; GPS equipped
1	MD31	5.50	L	FW Thrush or AG-Cat aircraft		5 gallons water
1	MD31	5.50	L	FW Cessna Ag Wagon aircraft		5 gallons water
1	MD31	5.50	L	FW Thrush or AG-Cat aircraft		4 gallons water
1	MD31	3.50	G	Lor-al floater		Dual application; with fertilizer
1	MD31	4.50	G	Lor-al floater		Dual application; with fertilizer
1	2		G	PT Valmar	\$1/ac	With purchase of product
1	2		G	PT Valmar	\$1/ac	With purchase of product
1	2	3.75	L	FW Cessna Ag Truck aircraft		1 gallon water
1	2	4.00	L	Gallenberg hi-clearance sprayer		5-8 gallons water
1	2	4.00	L	FW Cessna Ag Truck aircraft		2 gallons water
1	2	4.00	L	Willmar Eagle hi-clearance sprayer		5 gallons water
1	2	4.25	L	Willmar Eagle hi-clearance sprayer		10 gallons water
1	2	4.50	L	Ag-chem Rogator hi-clearance sprayer		5-10 gallons water
1	2	4.50	L	FW Cessna Ag Truck aircraft		4 gallons water
1	2	4.50	L	Gallenberg hi-clearance sprayer		10 gallons water

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne

HERBICIDE APPLICATION 1999



Product Name Quantity Cost (\$/ac) Form of Product Type of Application Rate of Application

1	2	5.50	L	Gallenberg hi-clearance sprayer	20 gallons water
1	2	6.00	L	Willmar Eagle hi-clearance sprayer	20 gallons water
1	4		G	PT Nodet	\$2/ac With purchase of product
1	4	4.00	G	Terrigator floater	
1	4	2.50-3.00	L	Tractor, PT boom sprayer with 64-82' boom	5-10 gallons water
1	4	4.50	L	FW Thrush aircraft	2 gallons water
1	4	4.50	L	FW Air Tractor aircraft	1 gallon water
1	4	4.75	L	FW Air Tractor aircraft	2 gallons water
1	4	5.00	L	FW Air Tractor aircraft	3 gallons water
1	4	5.00	L	Spray Air hi-clearance sprayer	5-10 gallons water
1	4	5.50	L	FW Air Tractor aircraft	5 gallons water
1	4	5.50-6.90	L	FW Thrush aircraft	10 gallons water; depending on distance away
1	4	6.00	L	Rogator or Spray Coup hi-clearance sprayer	5-20 gallons water
1	4	6.00	L	Ag-Chem 70' floating boom sprayer	20 gallons water
1	4	6.50	L	FW Air Tractor aircraft	8 gallons water
1	4	7.50	L	FW Air Tractor aircraft	10 gallons water
1	4		G	PT Valmar	\$3/ac Dual application; with fertilizer

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne

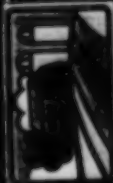
HERBICIDE APPLICATION 1999



Region County Custom Form of Product Type of Application Rental Cost Notes

1	4	4.50	L, G	Lor-al floater		Dual application; with fertilizer
1	5	3.75	L	FW Pownee Piper aircraft		1 gallon water
1	5	4.00	L	Willmar hi-clearance sprayer		10 gallons water
1	5	4.50	L	FW Pownee Piper aircraft		2 gallons water
1	5	4.50	L	FW Pownee Brave aircraft		2 gallons water
1	5	5.00	L	FW Pownee Brave aircraft		5 gallons water
1	5	5.50	L	FW Pownee Piper aircraft		4 gallons water
1	5	6.00	L	Willmar hi-clearance sprayer		20-30 gallons water
1	5	4.00	G	Willmar floater		Dual application; large acreage; with fertilizer
1	8	4.50	G	Lor-al floater		
1	8	4.00	L	Willmar hi-clearance sprayer		10 gallons water
1	8	4.00	L	Willmar Eagle hi-clearance sprayer		5-10 gallons water
1	8	4.50	L	Willmar hi-clearance sprayer		20 gallons water
1	8	5.00	L	Ag-chem Rogator hi-clearance sprayer		5-10 gallons water
1	8	7.00	L	Ag-chem Rogator hi-clearance sprayer		20 gallons water; row crop
1	8	8.00	L	Ag-chem Rogator hi-clearance sprayer		20 gallons water; row crop; beans
1	8	5.00	G	Lor-al floater		Dual application; with fertilizer

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne



HERBICIDE APPLICATION 1999

1	2	5.50	L	Gallenberg hi-clearance sprayer	20 gallons water
1	2	6.00	L	Willmar Eagle hi-clearance sprayer	20 gallons water
1	4		6	PT Nodet	With purchase of product
1	4	4.00	6	Terrigator floater	
1	4	2.50-3.00	L	Tractor, PT boom sprayer with 64-82' boom	5-10 gallons water
1	4	4.50	L	FW Thrush aircraft	2 gallons water
1	4	4.50	L	FW Air Tractor aircraft	1 gallon water
1	4	4.75	L	FW Air Tractor aircraft	2 gallons water
1	4	5.00	L	FW Air Tractor aircraft	3 gallons water
1	4	5.00	L	Spray Air hi-clearance sprayer	5-10 gallons water
1	4	5.50	L	FW Air Tractor aircraft	5 gallons water
1	4	5.50-6.90	L	FW Thrush aircraft	10 gallons water; depending on distance away
1	4	6.00	L	Rogator or Spray Coup hi-clearance sprayer	5-20 gallons water
1	4	6.00	L	Ag-Chem 70' floating boom sprayer	20 gallons water
1	4	6.50	L	FW Air Tractor aircraft	8 gallons water
1	4	7.50	L	FW Air Tractor aircraft	10 gallons water
1	4		6	PT Valmar	Dual applications with fertilizer
L - liquid 6 - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft JD - John Deere Vers - Versatile Fes - front wheel assist ac - acre hr - hour T - Tonne					

HERBICIDE APPLICATION 1999



Dual application with fertilizer

	1	4	4.50	L, G	Lor-al floater	
	1	5	3.75	L	FW Paines Piper aircraft	1 gallon water
	1	5	4.00	L	Willmar hi-clearance sprayer	10 gallons water
	1	5	4.50	L	FW Paines Piper aircraft	2 gallons water
	1	5	4.50	L	FW Paines Brave aircraft	2 gallons water
	1	5	5.00	L	FW Paines Brave aircraft	5 gallons water
	1	5	5.50	L	FW Paines Piper aircraft	4 gallons water
	1	5	6.00	L	Willmar hi-clearance sprayer	20-30 gallons water
	1	5	4.00	G	Willmar floater	Dual application: large acreage: with fertilizer

	1	8	4.50	G	Lor-al floater	
	1	8	4.00	L	Willmar hi-clearance sprayer	10 gallons water
	1	8	4.00	L	Willmar Eagle hi-clearance sprayer	5-10 gallons water
	1	8	4.50	L	Willmar hi-clearance sprayer	20 gallons water
	1	8	5.00	L	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
	1	8	7.00	L	Ag-chem Rogator hi-clearance sprayer	20 gallons water: row crop
	1	8	8.00	L	Ag-chem Rogator hi-clearance sprayer	20 gallons water: row crop: beans
	1	8	5.00	G	Lor-al floater	Dual application with fertilizer

Dual application with fertilizer

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne

HERBICIDE APPLICATION 1999



1	16	6	PT harrow draw bar with Valmar box	\$2.50/ac	With purchase of product
1	16	6	PT light duty harrows with Valmar box	\$1.75/ac	
1	16	6	PT heavy duty harrows with Valmar box	\$2.50/ac	
1	16	L	Quad sprayer with 12' boom	\$40/hr	
1	16	L	FW Air Tractor aircraft	4.00	1 gallon water
1	16	L	Hagie hi-clearance sprayer	4.00	5 gallons water
1	16	L	Hagie 284 hi-clearance sprayer	4.00	5-10 gallons water
1	16	L	Spray Coup or Hagie hi-clearance sprayer	4.00	5 gallons water
1	16	L	Hagie hi-clearance sprayer	4.25	10 gallons water
1	16	L	Spray Coup or Hagie hi-clearance sprayer	4.25	10 gallons water
1	16	L	Hagie hi-clearance sprayer	4.25	5-10 gallons water
1	16	L	Spray Coup hi-clearance sprayer	4.50	5-10 gallons water
1	16	L	FW Cessna Ag Wagon aircraft	4.50	1 gallon water
1	16	L	FW Air Tractor 401 aircraft	4.50	1-3 gallons water
1	16	L	Ag-chem Rogator hi-clearance sprayer	4.50	5-10 gallons water
1	16	L	FW Thrush aircraft	4.50	1 gallon water
1	16	L	Hagie 284 hi-clearance sprayer	4.50	Over 10 gallons water
1	16	L	FW Air Tractor aircraft	4.50	2 gallons water
1	16	L	FW Air Tractor aircraft	4.75	3 gallons water

L - liquid 6 - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatilis Fag - front wheel assist ac - acre hr - hour T - Tows

HERBICIDE APPLICATION 1999



1	16	5.00	L	FW Cessna Ag Wagon aircraft	2 gallons water
1	16	5.00	L	FW Thrush aircraft	2 gallons water
1	16	5.00	L	FW Air Tractor aircraft	4 gallons water
1	16	5.00	L	Spray Coup hi-clearance sprayer	20 gallons water
1	16	5.50	L	Spray Coup or Hagie hi-clearance sprayer	20 gallons water
1	16	5.50	L	FW Thrush aircraft	4 gallons water
1	16	5.50	L	FW Cessna Ag Wagon aircraft	3 gallons water
1	16	6.00	L	FW Thrush aircraft	5 gallons water
1	16	6.00	L	FW Cessna Ag Wagon aircraft	4 gallons water

Dual application with fertilizer or seed

1	26		6	PT Valmar	\$1/ac	With purchase of product
1	26		6	PT Valmar	\$2/ac	Without purchase of product

1	26	2.50	6	TM Valmar		
1	26	4.00	6	TM Valmar		
1	26	4.00	6	Ag-Chem Terrigator floater		

1	26	3.50	L	Willmar Eagle hi-clearance sprayer	5 gallons water
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L - liquid 6 - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne

HERBICIDE APPLICATION 1999



Custom 1999
John Deere Versa-Till
Application

1	16	G	PT harrow draw bar with Valmar box	\$2.50/ac	With purchase of product
1	16	G	PT light duty harrows with Valmar box	\$1.75/ac	
1	16	G	PT heavy duty harrows with Valmar box	\$2.50/ac	
1	16	L	Quad sprayer with 12' boom	\$40/hr	
1	16	L	FW Air Tractor aircraft		1 gallon water
1	16	L	Hagie hi-clearance sprayer		5 gallons water
1	16	L	Hagie 284 hi-clearance sprayer		5-10 gallons water
1	16	L	Spray Coup or Hagie hi-clearance sprayer		5 gallons water
1	16	L	Hagie hi-clearance sprayer		10 gallons water
1	16	L	Spray Coup or Hagie hi-clearance sprayer		10 gallons water
1	16	L	Hagie hi-clearance sprayer		5-10 gallons water
1	16	L	Spray Coup hi-clearance sprayer		5-10 gallons water
1	16	L	FW Cessna Ag Wagon aircraft		1 gallon water
1	16	L	FW Air Tractor 401 aircraft		1-3 gallons water
1	16	L	Ag-chem Rogator hi-clearance sprayer		5-10 gallons water
1	16	L	FW Thrush aircraft		1 gallon water
1	16	L	Hagie 284 hi-clearance sprayer		Over 10 gallons water
1	16	L	FW Air Tractor aircraft		2 gallons water
1	16	L	FW Air Tractor aircraft		3 gallons water

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
JD - John Deere Versa-Till Fwa - front wheel assist ac - acre hr - hour T - Tonne

HERBICIDE APPLICATION 1999



Region County Custom Form of Product Type of Applicator Rental Cost Notes

1	16	L	5.00	FW Cessna Ag Wagon aircraft	2 gallons water
1	16	L	5.00	FW Thrush aircraft	2 gallons water
1	16	L	5.00	FW Air Tractor aircraft	4 gallons water
1	16	L	5.00	Spray Coup hi-clearance sprayer	20 gallons water
1	16	L	5.50	Spray Coup or Hagie hi-clearance sprayer	20 gallons water
1	16	L	5.50	FW Thrush aircraft	4 gallons water
1	16	L	5.50	FW Cessna Ag Wagon aircraft	3 gallons water
1	16	L	6.00	FW Thrush aircraft	5 gallons water
1	16	L	6.00	FW Cessna Ag Wagon aircraft	4 gallons water
1	16	G	4.50	Lor-al or Terrigator floater	Dual application; with fertilizer or seed
1	26	G		PT Valmar	With purchase of product
1	26	G		PT Valmar	Without purchase of product
1	26	G	2.50	TM Valmar	
1	26	G	4.00	TM Valmar	
1	26	G	4.00	Ag-Chem Terrigator floater	
1	26	L	3.50	Willmar Eagle hi-clearance sprayer	5 gallons water

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne

HERBICIDE APPLICATION 1999



1	26	4.00	L	Willmar floater	5-10 gallons water
1	26	4.00	L	Ag-chem Rogator hi-clearance sprayer	5 gallons water
1	26	4.00	L	Flexicoil cultivator with 100' boom sprayer	10 gallons water
1	26	4.00	L	Willmar Eagle hi-clearance sprayer	10 gallons water
1	26	4.00	L	FW Pawnee Piper PA235 aircraft	1 gallon water
1	26	4.00	L	Rogator or Willmar hi-clearance sprayer	5 gallons water
1	26	4.25	L	Willmar floater	15 gallons water
1	26	4.50	L	Ag-chem Rogator hi-clearance sprayer	10 gallons water
1	26	4.50	L	Ag-chem Rogator hi-clearance sprayer	5 gallons water
1	26	4.50	L	Rogator or Willmar hi-clearance sprayer	10 gallons water
1	26	4.50	L	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
1	26	4.75	L	FW Pawnee Piper PA235 aircraft	2 gallons water
1	26	5.00	L	Ag-chem Rogator hi-clearance sprayer	10 gallons water
1	26	5.00-5.50	L	Willmar hi-clearance sprayer	20 gallons water
1	26	5.50-5.75	L	FW Pawnee Piper PA235 aircraft	4 gallons water
1	26	6.00	L	Ag-chem Rogator hi-clearance sprayer	20 gallons water
1	26	G.A		PT Edwards 34' cultivator with Raven injector and Valmar box	Rental for dual application; with purchase of product

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne



HERBICIDE APPLICATION 1999

Region	County	Custom Cost (\$/ac)	Form of Product	Type of Applicator	Rental Cost	Notes
1	26	4.50	G	Lor-al floater		Dual application; with fertilizer
1	26	4.50	G	Lor-al floater		Dual application; with fertilizer
1	26	4.50	G	Lor-al floater		Dual application; with fertilizer
1	26	5.00	G	Terrigator floater		Dual application; with fertilizer
1	26	5.50	G	Lor-al floater		Dual application; with fertilizer
2	Calgary	3.80	L	Ag-chem Rogator hi-clearance sprayer		5-10 gallons water
2	Calgary	5.00	L	FW Pawnee Piper 235-25 aircraft		1 gallon water
2	Lacombe		G	PT Valmar	\$1.50/ac	With purchase of product
2	Lacombe	4.00	G	Tyler floater		
2	Lacombe	4.00	L	Tyler Patriot hi-clearance sprayer		5-10 gallons water
2	Lacombe	4.00	L	SP Spray Coup with 60-80' boom		5-10 gallons water
2	Lacombe	5.00	L	Tyler Patriot hi-clearance sprayer		20 gallons water
2	Lacombe	4.25	G	Tyler floater		Dual application; with fertilizer
2	MD7	4.50	G	FW Cessna Grumman 164B Ag Cat aircraft		Up to 50 lbs.

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne



HERBICIDE APPLICATION 1999

1	26	4.00	L	Willmar floater	5-10 gallons water
1	26	4.00	L	Ag-chem Rogator hi-clearance sprayer	5 gallons water
1	26	4.00	L	Flexicail cultivator with 100' boom sprayer	10 gallons water
1	26	4.00	L	Willmar Eagle hi-clearance sprayer	10 gallons water
1	26	4.00	L	FW Pawnee Piper PA235 aircraft	1 gallon water
1	26	4.00	L	Rogator or Willmar hi-clearance sprayer	5 gallons water
1	26	4.25	L	Willmar floater	15 gallons water
1	26	4.50	L	Ag-chem Rogator hi-clearance sprayer	10 gallons water
1	26	4.50	L	Ag-chem Rogator hi-clearance sprayer	5 gallons water
1	26	4.50	L	Rogator or Willmar hi-clearance sprayer	10 gallons water
1	26	4.50	L	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
1	26	4.75	L	FW Pawnee Piper PA235 aircraft	2 gallons water
1	26	5.00	L	Ag-chem Rogator hi-clearance sprayer	10 gallons water
1	26	5.00-5.50	L	Willmar hi-clearance sprayer	20 gallons water
1	26	5.50-5.75	L	FW Pawnee Piper PA235 aircraft	4 gallons water
1	26	6.00	L	Ag-chem Rogator hi-clearance sprayer	20 gallons water

Rental for dual application; with purchase of product

PT Edwards 34' cultivator with Raven injector and \$2/ac
Valmar box

L - liquid 6 - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne



HERBICIDE APPLICATION 1999

Roundup
1999

Herbicide Application

1	26	4.50	6	Lar-al floater	Dual application; with fertilizer
1	26	4.50	6	Lar-al floater	Dual application; with fertilizer
1	26	4.50	6	Lar-al floater	Dual application; with fertilizer
1	26	5.00	6	Terrigator floater	Dual application; with fertilizer
1	26	5.50	6	Lar-al floater	Dual application; with fertilizer

2	Calgary	3.80	L	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
2	Calgary	5.00	L	FW Pawnee Piper 235-25 aircraft	1 gallon water

\$1.50/ac With purchase of product

2	Lacombe		6	PT Valmar	
2	Lacombe	4.00	6	Tyler floater	
2	Lacombe	4.00	L	Tyler Patriot hi-clearance sprayer	5-10 gallons water
2	Lacombe	4.00	L	SP Spray Coup with 60-80' boom	5-10 gallons water
2	Lacombe	5.00	L	Tyler Patriot hi-clearance sprayer	20 gallons water
2	Lacombe	4.25	6	Tyler floater	Dual application; with fertilizer
2	MD7	4.50	6	FW Cessna Grumman 164B Ag Cat aircraft	Up to 50 lbs.

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne



HERBICIDE APPLICATION 1999

2	MD7	4.00	L	FW Cessna Grumman 164B Ag Cat aircraft	1 gallon water
2	MD7	4.50	L	FW Cessna Grumman 164B Ag Cat aircraft	2 gallons water
2	MD7	5.00	L	FW Cessna Grumman 164B Ag Cat aircraft	3 gallons water
2	MD7	6.00	L	FW Cessna Grumman 164B Ag Cat aircraft	5 gallons water
2	MD44		6	PT Flexicall with harrow bar and Valmar box	With purchase of product
2	MD44		6	PT Valmar	With purchase of product
2	MD44		6	PT Flexicall with harrow bar and Valmar box	With purchase of product
2	MD44		6	PT Degelman Field Master	With purchase of product
2	MD44		6	PT Valmar	With purchase of product
2	MD44	4.00	L	Tryco 60' boom chemical sprayer	5-10 gallons water
2	MD44	4.00	L	Hagie hi-clearance sprayer	5-7 gallons water
2	MD44	4.00	L	TM 52' Hardy sprayer	5-10 gallons water
2	MD44	4.00	L	Ag-chem Rogator hi-clearance sprayer	5 gallons water
2	MD44	4.00	L	Ag-chem Rogator hi-clearance sprayer	5 gallons water
2	MD44	4.25	L	Willmar, Rogator or Air Coop hi-clearance sprayer	10 gallons water
2	MD44	4.25	L	Hagie hi-clearance sprayer	10 gallons water
2	MD44	4.50	L	FW Pannex 235 aircraft	1 gallon water
2	MD44	4.50	L	FW Cessna 188 aircraft	1 gallon water
2	MD44	4.50	L	Spray Coup with 50' boom	5-10 gallons water

L - liquid 6 - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne

HERBICIDE APPLICATION 1999



2	MD44	4.75	L	Ag-chem Rogator hi-clearance sprayer	10 gallons water
2	MD44	4.75	L	Hagie hi-clearance sprayer	15-20 gallons water
2	MD44	4.75-5.00	L	FW Pawnee 235 aircraft	1.5 gallons water
2	MD44	5.00	L	FW Cessna 188 aircraft	2 gallons water
2	MD44	5.00	L	Patriot hi-clearance sprayer	20 gallons water
2	MD44	5.25	L	FW Pawnee 235 aircraft	2 gallons water
2	MD44	5.50	L	Willmar Rogator or Air Coop hi-clearance sprayer	20 gallons water
2	MD44	5.50	L	FW Cessna 188 aircraft	3 gallons water
2	MD44	5.50	L	Ag-chem Rogator hi-clearance sprayer	20 gallons water
2	MD44	6.00	L	FW Cessna 188 aircraft	4 gallons water
2	MD44	4.00	6	TM Valmar dual box floater	Dual application
2	MD44	4.00	6	Lor-al floater	Dual application; with fertilizer
2	MD44	9.50	6,A	Tractor, 50 cultivator with Raven control and Valmar box	Anhydrous fertilizer and granular herbicide
2	MD47	4.00	L	Willmar hi-clearance sprayer	5 gallons water
2	MD47	4.00	L	Hagie hi-clearance sprayer	5-10 gallons water
2	MD47	4.50	L	Willmar hi-clearance sprayer	10 gallons water
2	MD47	7.00	L	Willmar hi-clearance sprayer	20 gallons water

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne



HERBICIDE APPLICATION 1999

Rental
Cost

Form of
Application

Custom
60/20

Quantity

Region

2	MD7	4.00	L	FW Cessna Grumman 164B Ag Cat aircraft	1 gallon water
2	MD7	4.50	L	FW Cessna Grumman 164B Ag Cat aircraft	2 gallons water
2	MD7	5.00	L	FW Cessna Grumman 164B Ag Cat aircraft	3 gallons water
2	MD7	6.00	L	FW Cessna Grumman 164B Ag Cat aircraft	5 gallons water
2	MD44		G	PT Flexicoil with harrow bar and Valmar box	With purchase of product
2	MD44		G	PT Valmar	With purchase of product
2	MD44		G	PT Flexicoil with harrow bar and Valmar box	With purchase of product
2	MD44		G	PT Degelman Field Master	With purchase of product
2	MD44		G	PT Valmar	With purchase of product
2	MD44	4.00	L	Tryco 60' boom chemical sprayer	5-10 gallons water
2	MD44	4.00	L	Hagie hi-clearance sprayer	5-7 gallons water
2	MD44	4.00	L	TM 52' Hardy sprayer	5-10 gallons water
2	MD44	4.00	L	Ag-chem Rogator hi-clearance sprayer	5 gallons water
2	MD44	4.00	L	Ag-chem Rogator hi-clearance sprayer	5 gallons water
2	MD44	4.25	L	Willmar, Rogator or Air Coop hi-clearance sprayer	10 gallons water
2	MD44	4.25	L	Hagie hi-clearance sprayer	10 gallons water
2	MD44	4.50	L	FW Pawnee 235 aircraft	1 gallon water
2	MD44	4.50	L	FW Cessna 188 aircraft	1 gallon water
2	MD44	4.50	L	Spray Coup with 50' boom	5-10 gallons water

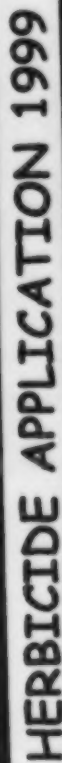
L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne



HERBICIDE APPLICATION 1999

Region	Quantity	Custom Cost (\$/hr)	Form of Product	Type of Application	Rental Cost	Note
2	MD44	4.75	L	Ag-chem Rogator hi-clearance sprayer		10 gallons water
2	MD44	4.75	L	Hagie hi-clearance sprayer		15-20 gallons water
2	MD44	4.75-5.00	L	FW Pawnee 235 aircraft		1.5 gallons water
2	MD44	5.00	L	FW Cessna 188 aircraft		2 gallons water
2	MD44	5.00	L	Patriot hi-clearance sprayer		20 gallons water
2	MD44	5.25	L	FW Pawnee 235 aircraft		2 gallons water
2	MD44	5.50	L	Willmar, Rogator or Air Coop hi-clearance sprayer		20 gallons water
2	MD44	5.50	L	FW Cessna 188 aircraft		3 gallons water
2	MD44	5.50	L	Ag-chem Rogator hi-clearance sprayer		20 gallons water
2	MD44	6.00	L	FW Cessna 188 aircraft		4 gallons water
2	MD44	4.00	G	TM Valmar dual box floater		Dual application
2	MD44	4.00	G	Lor-al floater		Dual application; with fertilizer
2	MD44	9.50	G,A	Tractor, 50 cultivator with Raven control and Valmar box		Anhydrous fertilizer and granular herbicide
2	MD47	4.00	L	Willmar hi-clearance sprayer		5 gallons water
2	MD47	4.00	L	Hagie hi-clearance sprayer		5-10 gallons water
2	MD47	4.50	L	Willmar hi-clearance sprayer		10 gallons water
2	MD47	7.00	L	Willmar hi-clearance sprayer		20 gallons water

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne



HERBICIDE APPLICATION 1999

QTY	ITEM	PRICE	DESCRIPTION	UNIT	PRICE	REMARKS
2	MD48	6	PT Valmar		\$1/ac	With purchase of product
2	MD48	6	PT 50' heavy harrows with Valmar box		\$2.25/ac	Maximum \$375/day
2	MD48	2.25	TM Valmar			
2	MD48	3.00	TM Valmar			
2	MD48	3.00	TM Valmar			
2	MD48	3.50-4.00	L Hi-clearance sprayer			5 gallons water
2	MD48	3.90	L Hagie hi-clearance sprayer			5-10 gallons water
2	MD48	4.00	L Ag-chem Rogator hi-clearance sprayer			10 gallons water
2	MD48	4.00	L Hagie hi-clearance sprayer			5-10 gallons water
2	MD48	4.00	L Ag-chem Rogator hi-clearance sprayer			5 gallons water
2	MD48	4.25	L Ag-chem Rogator hi-clearance sprayer			5-10 gallons water
2	MD48	4.50	L Ag-chem Rogator hi-clearance sprayer			20 gallons water
2	MD48	4.50	L Willmar hi-clearance sprayer			20 gallons water
2	MD48	4.75	L Ag-chem Rogator hi-clearance sprayer			20 gallons water
2	MD48	4.90	L Hagie hi-clearance sprayer			20 gallons water
2	MD48	5.00	L Hagie hi-clearance sprayer			20 gallons water
2	MD48	5.00	L Hagie hi-clearance sprayer			Over 10 gallons water
2	MD48	4.75	G Terrigator floater			Dual application; with fertilizer

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne



HERBICIDE APPLICATION 1999

Region	County	Custom Cost (\$/ac)	Form of Product	Type of Applicator	Rental Cost	Notes
2	SA4	3.25	L	Spray Coup hi-clearance sprayer		3 gallons water
2	3	\$20.00/map	Aerial	Aerial photographic field mapping		No charge if customer orders custom work
2	3		G	PT Valmar	\$1/ac	With purchase of product
2	3	4.00	L	Tyler Patriot hi-clearance sprayer		5-8 gallons water
2	3	4.00	L	Willmar hi-clearance sprayer		5-20 gallons water
2	3	4.00	L	Tyler Patriot hi-clearance sprayer		5-10 gallons water
2	3	4.25	L	Tyler Patriot hi-clearance sprayer		5-9 gallons water
2	3	4.50	L	Tyler Patriot hi-clearance sprayer		10 gallons water
2	3	5.00	L	Tyler Patriot hi-clearance sprayer		20 gallons water
2	3	5.00	L	Ag-chem Rogator hi-clearance sprayer		10 gallons water
2	3	5.50	L	Tyler Patriot hi-clearance sprayer		20 gallons water
2	3	5.50	L	Tyler Patriot hi-clearance sprayer		10 gallons water
2	3	\$210/hr	L	Willmar hi-clearance sprayer		Pasture spraying
2	3	4.50	G	Tyler air flow floater		Dual application, with fertilizer
2	6	4.00	G	Tyler floater		Single application
2	6	4.00	G	Lor-al floater		Single application

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne

HERBICIDE APPLICATION 1999



2	MD-48	6	PT Valmar	\$1/ac	With purchase of product
2	MD-48	6	PT 50' heavy harrows with Valmar box	\$2.25/ac	Maximum \$375/day
2	MD-48	2.25	TM Valmar		
2	MD-48	3.00	TM Valmar		
2	MD-48	3.00	TM Valmar		
2	MD-48	3.50-4.00	L Hi-clearance sprayer		5 gallons water
2	MD-48	3.90	L Hagie hi-clearance sprayer		5-10 gallons water
2	MD-48	4.00	L Ag-chem Rogator hi-clearance sprayer		10 gallons water
2	MD-48	4.00	L Hagie hi-clearance sprayer		5-10 gallons water
2	MD-48	4.00	L Ag-chem Rogator hi-clearance sprayer		5 gallons water
2	MD-48	4.25	L Ag-chem Rogator hi-clearance sprayer		5-10 gallons water
2	MD-48	4.50	L Ag-chem Rogator hi-clearance sprayer		20 gallons water
2	MD-48	4.50	L Willmar hi-clearance sprayer		20 gallons water
2	MD-48	4.75	L Ag-chem Rogator hi-clearance sprayer		20 gallons water
2	MD-48	4.90	L Hagie hi-clearance sprayer		20 gallons water
2	MD-48	5.00	L Hagie hi-clearance sprayer		20 gallons water
2	MD-48	5.00	L Hagie hi-clearance sprayer		Over 10 gallons water
2	MD-48	4.75	G Terrigator floater		Dual application; with fertilizer

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne

HERBICIDE APPLICATION 1999



Price
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2	SA4	3.25	L	Spray Coup hi-clearance sprayer	3 gallons water
2	3	\$20.00/map	Aerial	Aerial photographic field mapping	No charge if customer orders custom work
2	3		G	PT Valmar	With purchase of product
2	3	4.00	L	Tyler Patriot hi-clearance sprayer	5-8 gallons water
2	3	4.00	L	Willmar hi-clearance sprayer	5-20 gallons water
2	3	4.00	L	Tyler Patriot hi-clearance sprayer	5-10 gallons water
2	3	4.25	L	Tyler Patriot hi-clearance sprayer	5-9 gallons water
2	3	4.50	L	Tyler Patriot hi-clearance sprayer	10 gallons water
2	3	5.00	L	Tyler Patriot hi-clearance sprayer	20 gallons water
2	3	5.00	L	Ag-chem Ragator hi-clearance sprayer	10 gallons water
2	3	5.50	L	Tyler Patriot hi-clearance sprayer	20 gallons water
2	3	5.50	L	Tyler Patriot hi-clearance sprayer	10 gallons water
2	3	\$210/hr	L	Willmar hi-clearance sprayer	Pasture spraying
2	3	4.50	G	Tyler air flow floater	Dual application; with fertilizer
2	6	4.00	G	Tyler floater	Single application
2	6	4.00	G	Lor-al floater	Single application

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
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2	6	4.25	6	Lor-al floater	Dual application; with fertilizer
2	6	4.50	6	Tyler floater	Dual application; with fertilizer
2	17		6	PT 50' heavy harrows with Valmar box	\$2/ac
2	17		6	PT heavy duty harrows with Valmar box	\$3.75/ac
2	17	4.00	6	Terrigator floater	Single application
2	17	4.00	6	Tyler floater	
2	17	4.25	6	Tyler floater	Single application
2	17		L	PT pasture sprayer	\$200/day
2	17	3.75	L	Hogie hi-clearance sprayer	5-10 gallons water
2	17	4.00	L	Flexicall 60' boom sprayer	5 gallons water
2	17	4.00	L	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
2	17	4.00	L	Rogator or Hogie hi-clearance sprayer	5-10 gallons water
2	17	4.00	L	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
2	17	4.00	L	Rogator or Patriot hi-clearance sprayer	5-10 gallons water
2	17	4.00	L	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
2	17	4.00-5.00	L	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
2	17	4.25	L	Tyler Patriot hi-clearance sprayer	5-10 gallons water

L - liquid 6 - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne

HERBICIDE APPLICATION 1999



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2	17	4.50	L	Flexicoil 60' boom sprayer	10 gallons water
2	17	4.50	L	Willmar hi-clearance sprayer	5-10 gallons water
2	17	5.00	L	Rogator or Patriot hi-clearance sprayer	20 gallons water
2	17	5.00	L	Ag-chem Rogator hi-clearance sprayer	20 gallons water
2	17	5.00	L	Willmar hi-clearance sprayer	20 gallons water
2	17	6.00	L	Rogator or Hagie hi-clearance sprayer	11-20 gallons water
2	17	4.50	G	Ag-Chem floater	Dual application; with fertilizer
2	17	4.75	G	Terrigator floater	Dual application; with fertilizer
2	17	5.00	G	Tyler floater	Dual application; with fertilizer
2	17	5.00	G	Ag-Chem floater	Dual application; with fertilizer
2	17	5.00	G	Ag-Chem Terrigator floater	Dual application; with fertilizer
2	18	3.50	L	Computer Spray with 60' boom	2 gallons water; customer hauls water
2	23		G	PT Valmar	\$100/day
2	23		G	PT heavy harrows with Valmar box	\$425/day
2	23	4.00	G	Lar-al or Terrigator floater	

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne



HERBICIDE APPLICATION 1999

2	6	4.25	G	Lor-al floater			Dual application; with fertilizer
2	6	4.50	G	Tyler floater			Dual application; with fertilizer
2	17		G	PT 50' heavy harrows with Valmar box	\$2/ac		
2	17		G	PT heavy duty harrows with Valmar box	\$3.75/ac		
2	17	4.00	G	Terrigator floater			Single application
2	17	4.00	G	Tyler floater			
2	17	4.25	G	Tyler floater			Single application
2	17		L	PT pasture sprayer	\$200/day		
2	17	3.75	L	Hagie hi-clearance sprayer			5-10 gallons water
2	17	4.00	L	Flexicoil 60' boom sprayer			5 gallons water
2	17	4.00	L	Ag-chem Rogator hi-clearance sprayer			5-10 gallons water
2	17	4.00	L	Rogator or Hagie hi-clearance sprayer			5-10 gallons water
2	17	4.00	L	Ag-chem Rogator hi-clearance sprayer			5-10 gallons water
2	17	4.00	L	Rogator or Patriot hi-clearance sprayer			5-10 gallons water
2	17	4.00	L	Ag-chem Rogator hi-clearance sprayer			5-10 gallons water
2	17	4.00-5.00	L	Ag-chem Rogator hi-clearance sprayer			5-10 gallons water
2	17	4.25	L	Tyler Patriot hi-clearance sprayer			5-10 gallons water

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne

HERBICIDE APPLICATION 1999



Region	County	Custom Cost (\$/ac)	Form of Product	Type of Applicator	Rental Cost	Notes
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2	17	4.50	L	Flexicoil 60' boom sprayer		10 gallons water
2	17	4.50	L	Willmar hi-clearance sprayer		5-10 gallons water
2	17	5.00	L	Rogator or Patriot hi-clearance sprayer		20 gallons water
2	17	5.00	L	Ag-chem Rogator hi-clearance sprayer		20 gallons water
2	17	5.00	L	Willmar hi-clearance sprayer		20 gallons water
2	17	6.00	L	Rogator or Hagie hi-clearance sprayer		11-20 gallons water
2	17	4.50	G	Ag-Chem floater		Dual application; with fertilizer
2	17	4.75	G	Terrigator floater		Dual application; with fertilizer
2	17	5.00	G	Tyler floater		Dual application; with fertilizer
2	17	5.00	G	Ag-Chem floater		Dual application; with fertilizer
2	17	5.00	G	Ag-Chem Terrigator floater		Dual application; with fertilizer
2	18	3.50	L	Computer Spray with 60' boom		2 gallons water; customer hauls water
2	23		G	PT Valmar	\$100/day	
2	23		G	PT heavy harrows with Valmar box	\$425/day	
2	23	4.00	G	Lor-al or Terrigator floater		

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne

HERBICIDE APPLICATION 1999



Region County Custom Cost (\$/ac) Form of Product Type of Applicator Rental Cost Notes

2	23	4.00	L	Ag-chem Rogator hi-clearance sprayer	5 gallons water
2	23	4.00	L	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
2	23	4.00	L	Ag-chem Rogator hi-clearance sprayer	5 gallons water
2	23	4.00	L	Tractor, air assist ground sprayer with 80' boom	2-3 gallons water
2	23	4.00	L	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
2	23	4.00	L	Tyler Patriot hi-clearance sprayer	5-10 gallons water
2	23	4.25	L	Tyler Patriot hi-clearance sprayer	5 gallons water
2	23	4.25	L	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
2	23	4.50	L	Tyler Patriot hi-clearance sprayer	10 gallons water
2	23	4.50	L	Tyler Patriot hi-clearance sprayer	20 gallons water
2	23	4.50	L	Ag-chem Rogator hi-clearance sprayer	10 gallons water
2	23	4.50	L	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
2	23	5.00	L	Ag-chem Rogator hi-clearance sprayer	15 gallons water
2	23	5.00	L	Ag-chem Rogator hi-clearance sprayer	20 gallons water
2	23	5.00	L	Ag-chem Rogator hi-clearance sprayer	20 gallons water
2	23	5.00	L	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water: rough terrain
2	23	5.00	L	Ag-chem Rogator hi-clearance sprayer	20 gallons water
2	23	5.00-7.00	L	Ag-chem Rogator hi-clearance sprayer	Pasture spray: high volume water: rough terrain
2	23	5.50	L	Tyler Patriot hi-clearance sprayer	20 gallons water

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne



HERBICIDE APPLICATION 1999

Region	County	Custom Cost (\$/ac)	Form of Product	Type of Applicator	Rental Cost	Notes
2	23	4.00	G	Titan 4375 floater		Dual application; with fertilizer
2	23	4.50	G	Lor-al floater		Dual application; with fertilizer
2	23	4.75	G	Tyler floater		Dual application; with fertilizer
3	MD52		G	Cultivator with Valmar box	\$2/ac	With purchase of product
3	MD52	3.75	G	Lor-al or Terrigator floater		Single application
3	MD52	3.75	L	Ag-chem Rogator hi-clearance sprayer		5-10 gallons water
3	MD52	4.25	L	Ag-chem Rogator hi-clearance sprayer		Over 10 gallons water
3	MD52	4.25	G	Lor-al or Terrigator floater		Dual application; with fertilizer
3	MD61	\$250/hr	L	JD or Rogator hi-clearance sprayer		
3	9		G	PT Valmar	\$1/ac	With purchase of product
3	9	3.75	L	SP Spray Coup with 60' boom		5-10 gallons water
3	9	4.00	L	TM sprayer with 40' boom		5-10 gallons water
3	9	4.00	L	SP Spray Coup with 60' boom		5-10 gallons water
3	9	4.50	L	Maverick hi-clearance sprayer with 90' boom		5-10 gallons water
3	9	4.50	G	Terrigator floater		Dual application; with fertilizer

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tanne

HERBICIDE APPLICATION 1999



2	23	L	4.00	Ag-chem Rogator hi-clearance sprayer	5 gallons water
2	23	L	4.00	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
2	23	L	4.00	Ag-chem Rogator hi-clearance sprayer	5 gallons water
2	23	L	4.00	Tractor, air assist ground sprayer with 80' boom	2-3 gallons water
2	23	L	4.00	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
2	23	L	4.00	Tyler Patriot hi-clearance sprayer	5-10 gallons water
2	23	L	4.25	Tyler Patriot hi-clearance sprayer	5 gallons water
2	23	L	4.25	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
2	23	L	4.50	Tyler Patriot hi-clearance sprayer	10 gallons water
2	23	L	4.50	Tyler Patriot hi-clearance sprayer	20 gallons water
2	23	L	4.50	Ag-chem Rogator hi-clearance sprayer	10 gallons water
2	23	L	4.50	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
2	23	L	5.00	Ag-chem Rogator hi-clearance sprayer	15 gallons water
2	23	L	5.00	Ag-chem Rogator hi-clearance sprayer	20 gallons water
2	23	L	5.00	Ag-chem Rogator hi-clearance sprayer	20 gallons water
2	23	L	5.00	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water; rough terrain
2	23	L	5.00	Ag-chem Rogator hi-clearance sprayer	20 gallons water
2	23	L	5.00-7.00	Ag-chem Rogator hi-clearance sprayer	Pasture spray; high volume water; rough terrain
2	23	L	5.50	Tyler Patriot hi-clearance sprayer	20 gallons water

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tons



HERBICIDE APPLICATION 1999

Quantity	Model	Rate	Product	Application	Notes
2	23	4.00	6	Tifton 4375 floater	Dual application; with fertilizer
2	23	4.50	6	Lor-al floater	Dual application; with fertilizer
2	23	4.75	6	Tyler floater	Dual application; with fertilizer
3	MD52		6	Cultivator with Valmar box	With purchase of product
3	MD52	3.75	6	Lor-al or Terrigator floater	Single application
3	MD52	3.75	L	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
3	MD52	4.25	L	Ag-chem Rogator hi-clearance sprayer	Over 10 gallons water
3	MD52	4.25	6	Lor-al or Terrigator floater	Dual application; with fertilizer
3	MD61	\$250/hr	L	JD or Rogator hi-clearance sprayer	
3	9		6	PT Valmar	With purchase of product
3	9	3.75	L	SP Spray Coup with 60' boom	5-10 gallons water
3	9	4.00	L	TM sprayer with 40' boom	5-10 gallons water
3	9	4.00	L	SP Spray Coup with 60' boom	5-10 gallons water
3	9	4.50	L	Maverick hi-clearance sprayer with 90' boom	5-10 gallons water
3	9	4.50	6	Terrigator floater	Dual application; with fertilizer

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne

HERBICIDE APPLICATION 1999



3	13	4.00	L	Rogator or Ford hi-clearance sprayers	5-10 gallons water
3	19		6	PT Valmar	With purchase of product
3	19		6	Harrow draw bar with Valmar box	With purchase of product
3	19	4.25	L	John Deere hi-clearance sprayer	5 gallons water
3	19	4.50	L	John Deere hi-clearance sprayer	10 gallons water
3	19	5.50	L	John Deere hi-clearance sprayer	20 gallons water
3	19	4.00	6	Tyler Mertz floater	Dual application; with fertilizer
3	19	4.50	6	Terrigator floater	Dual application; with fertilizer
3	21	3.00	L	Tractor, Bourgault 1850 cultivator with 120' boom	5-10 gallons water
3	21	4.00	L	TM sprayer with 60' boom	5-10 gallons water
3	21	4.00	L	Walker 44 hi-clearance sprayer	5-10 gallons water
3	22		6	PT Valmar	With purchase of product
3	22	4.00	L	Willmar Eagle hi-clearance sprayer	5-10 gallons water
3	22	4.00	L	George White ground sprayer with 60' boom	10 gallons water
3	22	4.00	L	Ag-chem Rogator hi-clearance sprayer	5 gallons water; over 140 acres
3	22	4.00	L	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water

L - liquid 6 - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne

HERBICIDE APPLICATION 1999



3	22	4.00	L	SP ground sprayer with 60' boom	5-10 gallons water
3	22	4.00	L	Willmar hi-clearance sprayer	5-10 gallons water
3	22	4.25	L	Willmar hi-clearance sprayer	5 gallons water
3	22	4.50	L	Ag-chem Rogator hi-clearance sprayer	10-20 gallons water; over 140 acres
3	22	4.50	L	Willmar Eagle hi-clearance sprayer	20 gallons water
3	22	4.50	L	Ag-chem Rogator hi-clearance sprayer	20 gallons water
3	22	4.50-5.00	L	Willmar hi-clearance sprayer	20 gallons water
3	22	5.00	L	Ag-chem Rogator hi-clearance sprayer	5 gallons water; 60-140 acres
3	22	5.00	L	Willmar hi-clearance sprayer	10 gallons water
3	22	5.50	L	Ag-chem Rogator hi-clearance sprayer	10-20 gallons water; 60-140 acres
3	22	6.00	L	Willmar hi-clearance sprayer	20 gallons water
3	22	\$350/Field	L	Ag-chem Rogator hi-clearance sprayer	5 gallons water; under 60 acres
3	22	\$480/Field	L	Ag-chem Rogator hi-clearance sprayer	10-20 gallons water; under 60 acres
3	22	4.50	G	Terrigator floater	Dual application; with fertilizer
3	24	4.00	L	Willmar Eagle hi-clearance sprayer	5-10 gallons water
3	24	4.00	L	Spray Coup with 60' boom	5 gallons water
3	24	4.00	L	Rogator or Patriot hi-clearance sprayer	5-10 gallons water

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft

JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne



HERBICIDE APPLICATION 1999

Customization of
Cost (\$/Acre) Product Type of Applicator

Rental
Cost
Notes

3	13	L	4.00	Rogator or Ford hi-clearance sprayers	5-10 gallons water
3	19	G		PT Valmar	\$50/day With purchase of product
3	19	G		Harrow draw bar with Valmar box	\$2.50/ac With purchase of product
3	19	L	4.25	John Deere hi-clearance sprayer	5 gallons water
3	19	L	4.50	John Deere hi-clearance sprayer	10 gallons water
3	19	L	5.50	John Deere hi-clearance sprayer	20 gallons water
3	19	G	4.00	Tyler Mertz floater	Dual application; with fertilizer
3	19	G	4.50	Terrigator floater	Dual application; with fertilizer
3	21	L	3.00	Tractor, Bourgault 1850 cultivator with 120' boom	5-10 gallons water
3	21	L	4.00	TM sprayer with 60' boom	5-10 gallons water
3	21	L	4.00	Walker 44 hi-clearance sprayer	5-10 gallons water
3	22	G		PT Valmar	\$1/ac With purchase of product
3	22	L	4.00	Willmar Eagle hi-clearance sprayer	5-10 gallons water
3	22	L	4.00	George White ground sprayer with 60' boom	10 gallons water
3	22	L	4.00	Ag-chem Rogator hi-clearance sprayer	5 gallons water; over 140 acres
3	22	L	4.00	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne



HERBICIDE APPLICATION 1999

Region	County	Custom Cost: (\$/ac)	Form of Product	Type of Applicator	Rental Cost	Notes
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3	22	4.00	L	SP ground sprayer with 60' boom		5-10 gallons water
3	22	4.00	L	Willmar hi-clearance sprayer		5-10 gallons water
3	22	4.25	L	Willmar hi-clearance sprayer		5 gallons water
3	22	4.50	L	Ag-chem Rogator hi-clearance sprayer		10-20 gallons water; over 140 acres
3	22	4.50	L	Willmar Eagle hi-clearance sprayer		20 gallons water
3	22	4.50	L	Ag-chem Rogator hi-clearance sprayer		20 gallons water
3	22	4.50-5.00	L	Willmar hi-clearance sprayer		20 gallons water
3	22	5.00	L	Ag-chem Rogator hi-clearance sprayer		5 gallons water; 60-140 acres
3	22	5.00	L	Willmar hi-clearance sprayer		10 gallons water
3	22	5.50	L	Ag-chem Rogator hi-clearance sprayer		10-20 gallons water; 60-140 acres
3	22	6.00	L	Willmar hi-clearance sprayer		20 gallons water
3	22	\$350/Field	L	Ag-chem Rogator hi-clearance sprayer		5 gallons water; under 60 acres
3	22	\$480/Field	L	Ag-chem Rogator hi-clearance sprayer		10-20 gallons water; under 60 acres
3	22	4.50	G	Terrigator floater		Dual application; with fertilizer
3	24	4.00	L	Willmar Eagle hi-clearance sprayer		5-10 gallons water
3	24	4.00	L	Spray Coup with 60' boom		5 gallons water
3	24	4.00	L	Rogator or Patriot hi-clearance sprayer		5-10 gallons water

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne



HERBICIDE APPLICATION 1999

Region	County	Custom cost (\$/ac)	Form of Product	Type of Applicator	Rental cost	Notes
3	24	4.50	L	FW Thrush or Cessna 188B aircraft		1 gallon water
3	24	4.50	L	FW Thrush or Grumman Ag Cat aircraft		1 gallon water
3	24	4.50	L	Tyler Patriot hi-clearance sprayer		5-10 gallons water
3	24	5.00	L	FW Thrush or Cessna 188B aircraft		2 gallons water
3	24	5.00	L	Spray Coup with 60' boom		10 gallons water
3	24	5.00	L	FW Thrush or Grumman Ag Cat aircraft		2 gallons water
3	24	5.50	L	Tyler Patriot hi-clearance sprayer		20 gallons water
3	24	5.50	L	FW Thrush or Grumman Ag Cat aircraft		3 gallons water
3	24	5.50	L	FW Thrush or Cessna 188B aircraft		3 gallons water
3	24	4.50	G	Lor-al floater		Dual application; with fertilizer
3	27	3.00	L	Shop built 4wd truck with 56' boom		3-8 gallons water
3	27	4.00	L	TM sprayer with 60' boom		5-10 gallons water
3	27	4.00	L	Ag-chem Rogator hi-clearance sprayer		5-10 gallons water
3	27	4.00	L	Walker 44 hi-clearance sprayer		5-10 gallons water
3	29	3.50	L	SP Spray Coup with 60' boom		5 gallons water
3	29	4.00	L	Hagie hi-clearance sprayer		5-10 gallons water
3	29	4.00	L	FW Pawnee aircraft		2 gallons water
3	29	4.00	L	Hi-clearance sprayer		5-10 gallons water

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne



HERBICIDE APPLICATION 1999

Region	County	Custom Cost (\$/ac)	Form of Product	Type of Applicator	Rental Cost	Notes
3	29	4.00	L	FW Piper Pawnee aircraft		1-2 gallons water
3	29	4.00	L	Ag-chem Rogator hi-clearance sprayer		5-10 gallons water
3	29	4.00	L	SP Spray Coup with 60' boom		5 gallons water
3	29	4.50	L	FW Weatherly 6208 aircraft		2 gallons water
3	29	4.50	L	FW Pawnee aircraft		4 gallons water
3	29	4.50	L	Hi-clearance sprayer		20 gallons water
3	29	4.50	L	FW Witherly aircraft		1 gallon water
3	29	5.00	L	FW Witherly aircraft		2 gallons water
3	29	5.00	L	Ag-chem Rogator hi-clearance sprayer		20 gallons water
3	29	5.50	L	FW Witherly 6208 aircraft		2-4 gallons water
3	29	6.00	L	FW Witherly 6208 aircraft		5 gallons water
3	29	6.50	L	FW Witherly aircraft		5 gallons water
4	MD90		G	PT Valmar	\$1/ac	With purchase of product
4	MD90	4.00	G	Ag-Chem floater		
4	MD90	4.00	L	JD hi-clearance sprayer		Over 500 acres
4	MD90	4.50	L	JD hi-clearance sprayer		Under 500 acres
4	MD90	4.50	L	FW Cessna Ag Truck aircraft		1 gallon water
4	MD90	5.00	L	FW Cessna Ag Truck aircraft		2 gallons water
4	MD90	5.50	L	FW Air Tractor 402 aircraft		1-3 gallons water
4	MD90	5.50	L	FW Cessna Ag Truck aircraft		3 gallons water
L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne						

HERBICIDE APPLICATION 1999



3	24	4.50	L	FW Thrush or Cessna 188B aircraft	1 gallon water
3	24	4.50	L	FW Thrush or Grumman Ag Cat aircraft	1 gallon water
3	24	4.50	L	Tyler Patriot hi-clearance sprayer	5-10 gallons water
3	24	5.00	L	FW Thrush or Cessna 188B aircraft	2 gallons water
3	24	5.00	L	Spray Coup with 60' boom	10 gallons water
3	24	5.00	L	FW Thrush or Grumman Ag Cat aircraft	2 gallons water
3	24	5.50	L	Tyler Patriot hi-clearance sprayer	20 gallons water
3	24	5.50	L	FW Thrush or Grumman Ag Cat aircraft	3 gallons water
3	24	5.50	L	FW Thrush or Cessna 188B aircraft	3 gallons water
3	24	4.50	G	Lar-al floater	Dual application; with fertilizer
3	27	3.00	L	Shop built 4wd truck with 56' boom	3-8 gallons water
3	27	4.00	L	TM sprayer with 60' boom	5-10 gallons water
3	27	4.00	L	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
3	27	4.00	L	Walker 44 hi-clearance sprayer	5-10 gallons water
3	29	3.50	L	SP Spray Coup with 60' boom	5 gallons water
3	29	4.00	L	Hagie hi-clearance sprayer	5-10 gallons water
3	29	4.00	L	FW Pawnee aircraft	2 gallons water
3	29	4.00	L	Hi-clearance sprayer	5-10 gallons water

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne



HERBICIDE APPLICATION 1999

Quantity 4.50 4.50 4.50 4.50 4.50 4.50 4.50 5.00 5.00 5.50 6.00 6.50 4 MD90 4 MD90 4 MD90 4 MD90 4 MD90 4 MD90 4 MD90 4 MD90

3	29	4.00	L	FW Piper Pawnee aircraft	1-2 gallons water
3	29	4.00	L	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
3	29	4.00	L	SP Spray Coup with 60' boom	5 gallons water
3	29	4.50	L	FW Weatherly 6208 aircraft	2 gallons water
3	29	4.50	L	FW Pawnee aircraft	4 gallons water
3	29	4.50	L	Hi-clearance sprayer	20 gallons water
3	29	4.50	L	FW Witherly aircraft	1 gallon water
3	29	5.00	L	FW Witherly aircraft	2 gallons water
3	29	5.00	L	Ag-chem Rogator hi-clearance sprayer	20 gallons water
3	29	5.50	L	FW Weatherly 6208 aircraft	2-4 gallons water
3	29	6.00	L	FW Witherly 6208 aircraft	5 gallons water
3	29	6.50	L	FW Witherly aircraft	5 gallons water

\$1/ac With purchase of product

PT Valmar

Ag-Chem floater

4	MD90	4.00	L	JD hi-clearance sprayer	Over 500 acres
4	MD90	4.50	L	JD hi-clearance sprayer	Under 500 acres
4	MD90	4.50	L	FW Cessna Ag Truck aircraft	1 gallon water
4	MD90	5.00	L	FW Cessna Ag Truck aircraft	2 gallons water
4	MD90	5.50	L	FW Air Tractor 402 aircraft	1-3 gallons water
4	MD90	5.50	L	FW Cessna Ag Truck aircraft	3 gallons water

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne

HERBICIDE APPLICATION 1999



4	MD90	4.50	G	Terrigator floater	Dual application; with fertilizer
4	MD92	4.95	G	Terrigator floater	Single application
4	MD92	2.75	L	Ag-chem Rogator hi-clearance sprayer	plus \$125/hr Rough fields; minimum 40 acre charge
4	MD92	4.00	L	Tyler Patriot hi-clearance sprayer	5-10 gallons water
4	MD92	4.00	L	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
4	MD92	4.25	L	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
4	MD92	4.25-4.50	L	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
4	MD92	4.50	L	FW Cessna Ag Truck or Pawnee Brave aircraft	1 gallon water
4	MD92	4.50	L	Tyler Patriot hi-clearance sprayer	5-10 gallons water
4	MD92	4.50-5.00	L	Ag-chem Rogator hi-clearance sprayer	Over 10 gallons water
4	MD92	5.00	L	Ag-chem Rogator hi-clearance sprayer	20 gallons water
4	MD92	5.00	L	Tyler Patriot hi-clearance sprayer	20 gallons water
4	MD92	5.00	L	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
4	MD92	4.95	G	Terrigator floater	Dual application; with fertilizer
4	MD94	5.00	L	Tractor, Versatile 68' boom sprayer	5-10 gallons water

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne



HERBICIDE APPLICATION 1999

Product Name: Roundup
 Application Rate: 1.5 to 2.0 gallons per acre
 Application Method: Ground or Aerial

4	Parkland	4.00	L	Tractor, PT field sprayer	5-10 gallons water
4	Parkland	4.25	L	Melrose Spray Coup with 60' boom	5-10 gallons water
4	Parkland	4.50	L	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
4	Parkland	5.00	L	FW Piper Pawnee or Piper Brave aircraft	1 gallon water
4	Parkland	5.50	L	FW Piper Pawnee or Piper Brave aircraft	2 gallons water
4	Parkland	6.00	L	FW Piper Pawnee or Piper Brave aircraft	3 gallons water
4	Parkland	4.50	G	Terrigator floater	Dual application; with fertilizer
4	Strathcona	4.00	G	Valmar air spreader floater	Single application
4	Strathcona	2.75-3.00	L	Tractor, PT 60' boom ground sprayer	5-10 gallons water
4	Strathcona	3.50	L	Flexicoll 55 ground sprayer with 70' boom	5 gallons water
4	Strathcona	3.75	L	SP Spray Coup with 60' boom	5-10 gallons water
4	Strathcona	4.00	L	Flexicoll 55 ground sprayer with 70' boom	10 gallons water
4	Strathcona	4.25	L	John Deere 4700 hi-clearance sprayer	5-10 gallons water
4	Strathcona	4.25	L	John Deere 4700 hi-clearance sprayer	5-10 gallons water
4	Strathcona	4.00	G	Valmar air spreader floater	Dual application; with fertilizer
4	7		G	PT Nodet	With purchase of product

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne

HERBICIDE APPLICATION 1999



Rental
cost

Form of
Applicator

Notes

4	MD90	4.50	6	Terrigator floater	Dual application; with fertilizer
4	MD92	4.95	6	Terrigator floater	Single application
4	MD92	2.75	L	Ag-chem Rogator hi-clearance sprayer	Rough fields; minimum 40 acre charge
4	MD92	4.00	L	Tyler Patriot hi-clearance sprayer	5-10 gallons water
4	MD92	4.00	L	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
4	MD92	4.25	L	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
4	MD92	4.25-4.50	L	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
4	MD92	4.50	L	FW Cessna Ag Truck or Pownee Brave aircraft	1 gallon water
4	MD92	4.50	L	Tyler Patriot hi-clearance sprayer	5-10 gallons water
4	MD92	4.50-5.00	L	Ag-chem Rogator hi-clearance sprayer	Over 10 gallons water
4	MD92	5.00	L	Ag-chem Rogator hi-clearance sprayer	20 gallons water
4	MD92	5.00	L	Tyler Patriot hi-clearance sprayer	20 gallons water
4	MD92	5.00	L	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
4	MD92	4.95	6	Terrigator floater	Dual application; with fertilizer
4	MD94	5.00	L	Tractor, Versatile 68' boom sprayer	5-10 gallons water

L - liquid 6 - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne

HERBICIDE APPLICATION 1999



Region	County	Custom Cost (\$/ac)	Form of Product	Type of Applicator	Rental Cost	Notes
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4	Parkland	4.00	L	Tractor, PT field sprayer		5-10 gallons water
4	Parkland	4.25	L	Melrose Spray Coup with 60' boom		5-10 gallons water
4	Parkland	4.50	L	Ag-chem Rogator hi-clearance sprayer		5-10 gallons water
4	Parkland	5.00	L	FW Piper Pawnee or Piper Brave aircraft		1 gallon water
4	Parkland	5.50	L	FW Piper Pawnee or Piper Brave aircraft		2 gallons water
4	Parkland	6.00	L	FW Piper Pawnee or Piper Brave aircraft		3 gallons water
4	Parkland	4.50	G	Terrigator floater		Dual application; with fertilizer
4	Strathcona	4.00	G	Valmar air spreader floater		Single application
4	Strathcona	2.75-3.00	L	Tractor, PT 60' boom ground sprayer		5-10 gallons water
4	Strathcona	3.50	L	Flexicoil 55 ground sprayer with 70' boom		5 gallons water
4	Strathcona	3.75	L	SP Spray Coup with 60' boom		5-10 gallons water
4	Strathcona	4.00	L	Flexicoil 55 ground sprayer with 70' boom		10 gallons water
4	Strathcona	4.25	L	John Deere 4700 hi-clearance sprayer		5-10 gallons water
4	Strathcona	4.25	L	John Deere 4700 hi-clearance sprayer		5-10 gallons water
4	Strathcona	4.00	G	Valmar air spreader floater		Dual application; with fertilizer
4	7		G	PT Nodet	\$1/ac	With purchase of product

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne

HERBICIDE APPLICATION 1999



Region	County	Custom cost (\$/ac)	Form of Product	Type of Applicator	Rental cost	Notes
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4	10	4.00	L	SP Bourgault ground sprayer with 83' boom		5-10 gallons water
4	10	4.00	L	Ag-chem Rogator hi-clearance sprayer		5-10 gallons water
4	10	5.50	L	Spray Coup hi-clearance sprayer		1-5 gallons water
4	10	5.50	L	FW Air Tractor aircraft		1-5 gallons water
4	10	4.50	G	Terrigator floater		Dual application; with fertilizer
4	11	3.00	G	TM Valmar		
4	11	4.00	L	Tractor, 82' Flexicoil ground sprayer		
4	11	4.50	L	Ag-Chem or Patriot hi-clearance sprayer		5-10 gallons water
4	11	4.75	L	Ag-Chem or Patriot hi-clearance sprayer		20 gallons water
4	11	5.50	L	Ag-Chem or Patriot hi-clearance sprayer		Insecticides
4	11	4.50	G	Terrigator floater		Dual application; with fertilizer
4	11	4.50	G	Terrigator floater		Dual application; with fertilizer
4	12	3.00	L	Spray Coup 220 medium clearance sprayer		5 gallons water; cash payment
4	12	3.50	L	Spray Coup 220 medium clearance sprayer		10 gallons water; cash payment
4	12	4.00	L	Spray Coup 220 medium clearance sprayer		5 gallons water; payment deferred to fall
4	12	4.50	L	Spray Coup 220 medium clearance sprayer		10 gallons water; payment deferred to fall

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne

HERBICIDE APPLICATION 1999



Region	County	Custom Cost (\$/ac)	Form of Product	Type of Applicator	Rental Cost	Notes
4	12	7.00	G/A	Tractor, chisel plow with cold flow kit with Valmar box		Dual application; with fertilizer
4	12	9.50	G/A	Tractor, chisel plow with cold flow kit, Valmar box and rotary harrows & packer bar		Dual application; with fertilizer
4	25		G	PT Valmar	\$1/ac	With purchase of product
4	25	4.00	L	Tractor, ground sprayer with 68' boom		5-10 gallons water
4	25	4.50	L	Ag-chem Rogator hi-clearance sprayer		5-10 gallons water
4	25	\$85/hr	L	TM sprayer with 40' boom		Pasture spraying only
4	25	4.50	G	Terrigator floater		Dual application; with fertilizer
5	MD16	4.00	L	JD 4700 hi-clearance sprayer		5-10 gallons water
5	MD16	5.00	L	FW Cessna 188 or Air Tractor 401 aircraft		1 gallon water
5	MD16	5.50	L	FW Cessna 188 or Air Tractor 401 aircraft		2 gallons water
5	MD19	3.00	L	Tractor, Computer Spray with 60' boom		5-10 gallons water
5	MD19	3.00	L	SP Computer Spray with 60' boom		5 gallons water
5	MD21	2.50	L	Truck 5th wheel mounted 80' boom spray		5 gallons water
5	MD21	4.00	L	Ag-chem Rogator hi-clearance sprayer		5-10 gallons water

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne



HERBICIDE APPLICATION 1999

4	10	4.00	L	SP Bourgault ground sprayer with 83' boom	5-10 gallons water
4	10	4.00	L	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
4	10	5.50	L	Spray Coup hi-clearance sprayer	1-5 gallons water
4	10	5.50	L	FW Air Tractor aircraft	1-5 gallons water
4	10	4.50	G	Terrigator floater	Dual application; with fertilizer
4	11	3.00	G	TM Valmar	
4	11	4.00	L	Tractor, 82' Flexicoil ground sprayer	5-10 gallons water
4	11	4.50	L	Ag-Chem or Patriot hi-clearance sprayer	20 gallons water
4	11	4.75	L	Ag-Chem or Patriot hi-clearance sprayer	Insecticides
4	11	5.50	L	Ag-Chem or Patriot hi-clearance sprayer	
4	11	4.50	G	Terrigator floater	Dual application; with fertilizer
4	11	4.50	G	Terrigator floater	Dual application; with fertilizer
4	12	3.00	L	Spray Coup 220 medium clearance sprayer	5 gallons water; cash payment
4	12	3.50	L	Spray Coup 220 medium clearance sprayer	10 gallons water; cash payment
4	12	4.00	L	Spray Coup 220 medium clearance sprayer	5 gallons water; payment deferred to fall
4	12	4.50	L	Spray Coup 220 medium clearance sprayer	10 gallons water; payment deferred to fall

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne



HERBICIDE APPLICATION 1999

Notes

4	12	7.00	6A	Tractor, chisel plow with cold flow kit with Valmar box	Dual application; with fertilizer
4	12	9.50	6A	Tractor, chisel plow with cold flow kit, Valmar box and rotary harrows & packer bar	Dual application; with fertilizer
4	25		6	PT Valmar	With purchase of product
4	25	4.00	L	Tractor, ground sprayer with 68' boom	5-10 gallons water
4	25	4.50	L	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
4	25	\$85/hr	L	TM sprayer with 40' boom	Pasture spraying only
4	25	4.50	6	Terrigator floater	Dual application; with fertilizer
5	MD16	4.00	L	JD 4700 hi-clearance sprayer	5-10 gallons water
5	MD16	5.00	L	FW Cessna 188 or Air Tractor 401 aircraft	1 gallon water
5	MD16	5.50	L	FW Cessna 188 or Air Tractor 401 aircraft	2 gallons water
5	MD19	3.00	L	Tractor, Computer Spray with 60' boom	5-10 gallons water
5	MD19	3.00	L	SP Computer Spray with 60' boom	5 gallons water
5	MD21	2.50	L	Truck 5th wheel mounted 80' boom spray	5 gallons water
5	MD21	4.00	L	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne

HERBICIDE APPLICATION 1999



5	MD21	4.00	L	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
5	MD21	5.00	L	Ag-chem Rogator hi-clearance sprayer	20 gallons water
5	MD130	4.00	L	FW Piper Pawnee aircraft	1 gallon water
5	MD130	4.00	L	FW Grumann Ag Cat aircraft	1 gallon water
5	MD130	4.00	L	FW Grumann Ag Cat aircraft	3 gallons water
5	MD130	4.75	L	FW Grumann Ag Cat aircraft	1 gallon water
5	MD130	4.75	L	FW Piper Pawnee aircraft	2 gallons water
5	MD130	5.00	L	FW Grumann Ag Cat aircraft	2 gallons water
5	MD130	5.50	L	FW Piper Pawnee aircraft	3 gallons water
5	MD131		G	PT Valmar	With purchase of product
5	MD131	4.00	L	Tyler Patriot hi-clearance sprayer	5-10 gallons water
5	MD131	5.00	L	Tyler Patriot hi-clearance sprayer	Pesticides
5	MD131	4.50	G	Lar-al floater	Dual application; with fertilizer
5	MD133		G	PT Valmar	With purchase of product

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne

HERBICIDE APPLICATION 1999



5	MD133	4.00	L	Spray Coup hi-clearance sprayer with 50' boom	2 gallons water
5	MD133	4.00	L	Ag-chem Rogator hi-clearance sprayer	5 gallons water
5	MD133	4.00	L	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
5	MD133	4.00	L	Spray Coup hi-clearance sprayer	4-10 gallons water
5	MD133	4.25	L	Rogator 854 hi-clearance sprayer	5-10 gallons water
5	MD133	4.50	L	Ag-chem Rogator hi-clearance sprayer	10 gallons water
5	MD133	5.00	L	Rogator 854 hi-clearance sprayer	20 gallons water
5	MD135	4.00	L	Tractor, spray air with 80' boom	2-3 gallons water
5	MD136	4.00	L	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
5	MD136	5.00	L	Ag-chem Rogator hi-clearance sprayer	20 gallons water
5	1		G	PT Valmar	With purchase of product
5	1	4.00	L	Ag-Chem Rogator hi-clearance sprayer with air boom	3-10 gallons water
5	1	4.00	L	Willmar hi-clearance sprayer	5-10 gallons water
5	1	5.00	L	Ag-Chem Rogator hi-clearance sprayer with air boom	5 gallons water; insecticides
5	1	4.00	G	Lor-al floater	Dual application; with fertilizer

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne

HERBICIDE APPLICATION 1999



Rental
cost

Notice

Region County Custom Form of 503 (5/99) Product Type of Applicator

5	MD21	4.00	L	Ag-chem Rogator hi-clearance sprayer	5-10 gallons water
5	MD21	5.00	L	Ag-chem Rogator hi-clearance sprayer	20 gallons water
5	MD130	4.00	L	FW Piper Pawnee aircraft	1 gallon water
5	MD130	4.00	L	FW Grumann Ag Cat aircraft	1 gallon water
5	MD130	4.00	L	FW Grumann Ag Cat aircraft	3 gallons water
5	MD130	4.75	L	FW Grumann Ag Cat aircraft	1 gallon water
5	MD130	4.75	L	FW Piper Pawnee aircraft	2 gallons water
5	MD130	5.00	L	FW Grumann Ag Cat aircraft	2 gallons water
5	MD130	5.50	L	FW Piper Pawnee aircraft	3 gallons water
5	MD131		G	PT Valmar	With purchase of product
5	MD131	4.00	L	Tyler Patriot hi-clearance sprayer	5-10 gallons water
5	MD131	5.00	L	Tyler Patriot hi-clearance sprayer	Pesticides
5	MD131	4.50	G	Lor-al floater	Dual application; with fertilizer
5	MD133		G	PT Valmar	With purchase of product

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne



HERBICIDE APPLICATION 1999

Region	County	Custom Cost (\$/ac)	Form of Product	Type of Applicator	Rental Cost	Notes
5	MD133	4.00	L	Spray Coup hi-clearance sprayer with 50' boom		2 gallons water
5	MD133	4.00	L	Ag-chem Rogator hi-clearance sprayer		5 gallons water
5	MD133	4.00	L	Ag-chem Rogator hi-clearance sprayer		5-10 gallons water
5	MD133	4.00	L	Spray Coup hi-clearance sprayer		4-10 gallons water
5	MD133	4.25	L	Rogator 854 hi-clearance sprayer		5-10 gallons water
5	MD133	4.50	L	Ag-chem Rogator hi-clearance sprayer		10 gallons water
5	MD133	5.00	L	Rogator 854 hi-clearance sprayer		20 gallons water
5	MD135	4.00	L	Tractor, spray air with 80' boom		2-3 gallons water
5	MD136	4.00	L	Ag-chem Rogator hi-clearance sprayer		5-10 gallons water
5	MD136	5.00	L	Ag-chem Rogator hi-clearance sprayer		20 gallons water
5	1		G	PT Valmar	\$50/day	With purchase of product
5	1	4.00	L	Ag-Chem Rogator hi-clearance sprayer with air boom		3-10 gallons water
5	1	4.00	L	Willmar hi-clearance sprayer		5-10 gallons water
5	1	5.00	L	Ag-Chem Rogator hi-clearance sprayer with air boom		5 gallons water; insecticides
5	1	4.00	G	Lar-al floater		Dual application: with fertilizer

L - liquid G - granular SP - self-propelled PT - pull-type TM - truck mounted FW - fixed wing aircraft
 JD - John Deere Vers - Versatile Fwa - front wheel assist ac - acre hr - hour T - Tonne